ISSUE FOUR ▪ CHRISTMAS/JANUARY 1988 ▪ £1.50

Atari ST
Amiga
CBM 64/128
Spectrum
Amstrad
+ more

ACE

ADVANCED·COMPUTER·ENTERTAINMENT

SUPERB FREE DIARY!

- Entries for every day in 1988
- Glossary of computer terms
- Directory of software houses
- Programmers tables
- Personal high-score chart
- Calendars for 1987 and 1989

CHRISTMAS CRACKERS

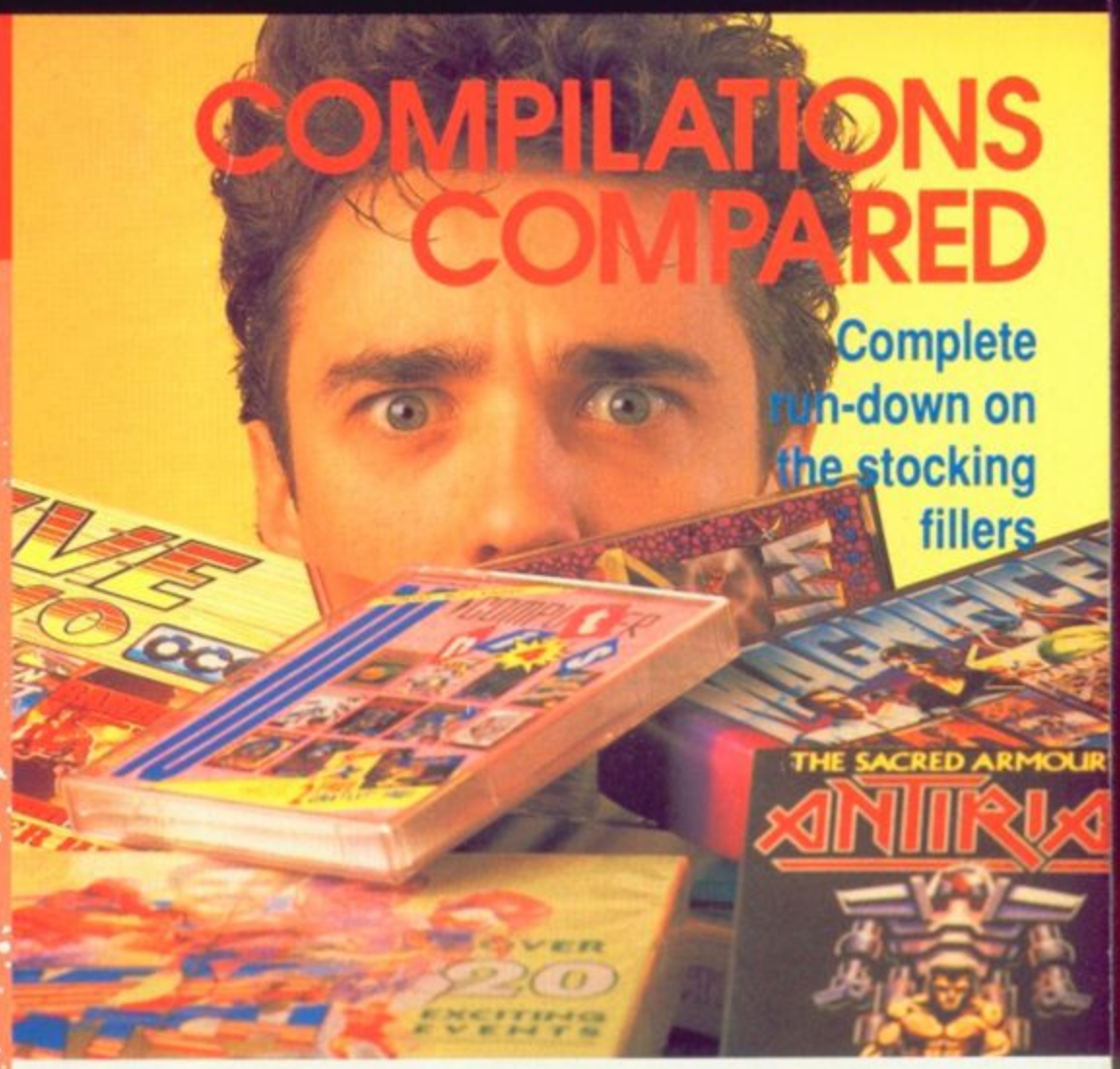
DRILLER
Solid 3D success

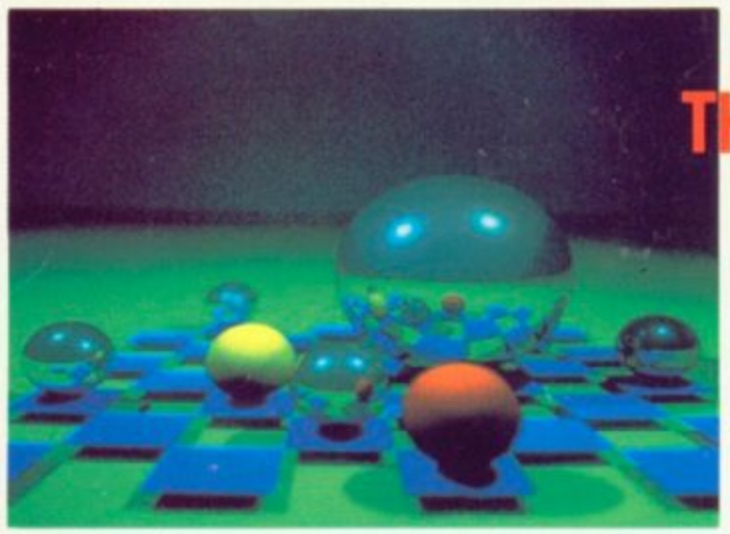
SKATE OR DIE
It's rad, man

STEALTH FIGHTER
Silent but deadly

COMPILATIONS COMPARED

Complete run-down on the stocking fillers





GAME OF THE FUTURE

An **ACE** investigation

KEYBOARD CAVALCADE

Christmas keyboard round up

ELKA EH-105

24 PAGE BUYERS' GUIDE

Hardware and software– listed every month in the ACE **Pink Pages**

"GREAT GAMES GARY"

TWO OF THE GREATEST SOCCER GAMES EVER DEVISED

CUP WINNERS CUP

HOME WIN

EAGUE CUP

GARY LINEKER'S SUPERSTAR SOCCER

The most original computer football game of all time... Available on:

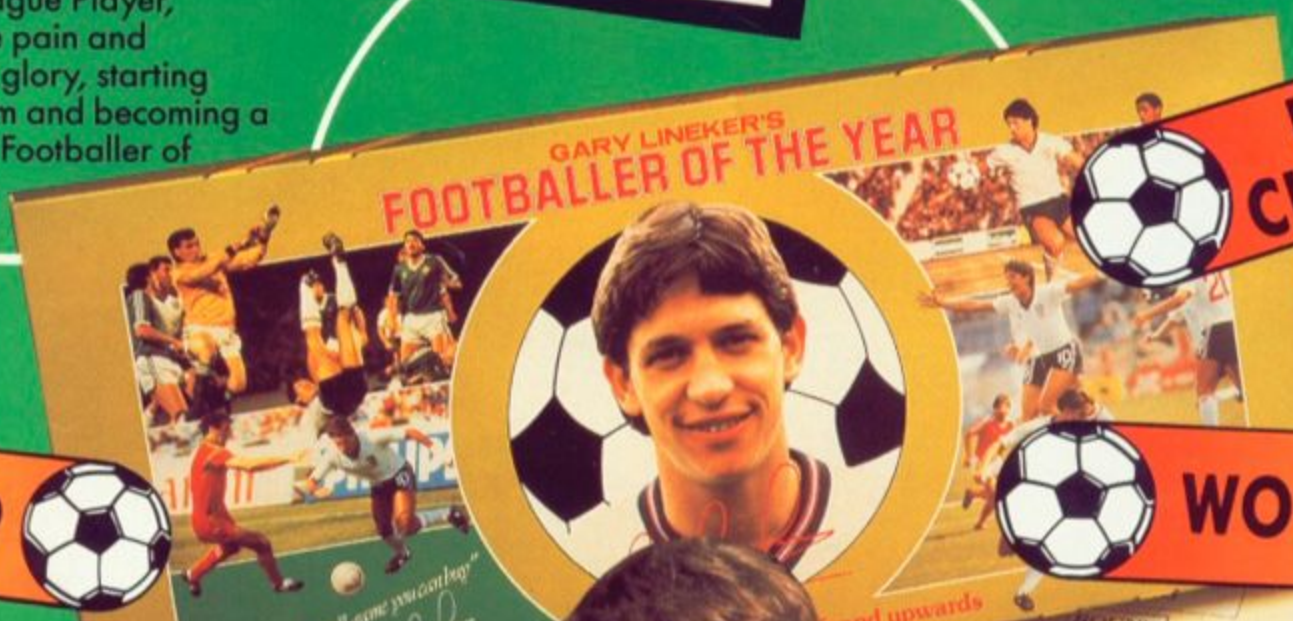
COMPUTER GAME PRICES

CBM 64/128
t £9.99, d £14.
Amstrad
t £9.99, d £14.
Spectrum t £7.
Atari ST £19.9

GARY LINEKER'S FOOTBALLER OF THE YEAR

Enjoy the world of a Football League Player, suffering the pain and winning the glory, starting at the bottom and becoming a legend... A Footballer of the Year.

LEAGUE CHAMPION



A CUP

WORLD CUP

WAY WIN

£14.99

GARY LINEKER'S FOOTBALLER OF THE YEAR BOARD GAME

ORDER YOUR GAMES NOW!!

If you would like us to rush of these great games direct to your home at no extra charge fill in this coupon NOW and post to:- GREMLIN BOARD GAMES/GREMLIN GRAPHICS SOFTWARE LTD. Alpha House, 10 Carver Sheffield S1 4FS.

I would like ..... copies of Gary Lineker's Footballer of the Year. (Cheques made payable to Gremlin Board Games)

I would like ..... copies of Gary Lineker's Superstar Soccer. System ..... (Cheques made payable to Gremlin Graphics Software Ltd.)

Name .....

Address .....

Postcode .....

Total Amount Enclosed £.....

CHEQUE/P.O./OR ACCESS/VISA ONLY.
Please debit my Access/Visa account.

Signature .....

Date .....

GREMLIN

Gremlin Graphics Software Ltd
Alpha House, 10 Carver Street
Sheffield S1 4FS.
Tel: (0742) 753423

MA
• No

Masters of the Universe, the Movie, brings to life the deadly, eternal conflict between good and evil. Masters of the Universe the computer game of the film allows you to control the forces of good to do battle with the forces of evil, the prize being the KEY to time travel and with it the title Master of the Universe.

AMSTR
£9.9
Casset
£14.9
Disk
SPECTR
£7.9
Casset

MASTERS OF THE UNIVERSE HAS COME TO LIFE!!

• Now you can live it, as the conflict between good and evil continues •

Masters of the Universe, the Movie, brings to life the deadly, eternal conflict between good and evil. Masters of the Universe the computer game of the film allows you to control the forces of good to do battle with the forces of evil, the prize being the KEY to time travel and with it the title Master of the Universe.
Slipping through a vortex in time the KEY has fallen into the hands of an unsuspecting American college student.

Little does he realise the awesome power he holds. Thinking it to be a musical instrument he falls to realise that every note he plays attracts the ruthless Skeletor and his develish army led by the frightening powerful Evil-Lyn. With the key in their possesion who can stop them escaping downtown America and returning to create chaos in Eternia? Only one man can save earth from this evil domination as HE MAN meets Skeletor in the battle for Eternia, the final chapter that will seal the fate of mankind forever.

AMSTRAD
£9.99 Cassette
£14.99 Disk
SPECTRUM
£7.99 Cassette

CBM 64/128
£9.99 Cassette
£14.99 Disk
ATARI ST
£19.99

MASTERS OF THE UNIVERSE™

The Movie

GREMLIN

Masters of the Universe and associated characters are trademarks owned by and used under license from Mattel Inc. © Mattel Inc. 1986. All Rights Reserved.

Gremlin Graphics Software Limited, Alpha House, 10 Carver Street, Sheffield S1 4FS Tel: 0742 753423

ACE

INTERFACE

7 News

If it's **hot**, it's **here**...Digital audio tape **revolution**...Women in **power**...Codemasters' new **Plus** label...and the latest on **TV licensing**.

12 Previews

Get a dose of **future shock** from Electronic Arts' **Apollo 18**, a dose of **Paranoia** from Ariolasoft's **Magicbytes**, and a shot of forthcoming **Sega** releases.

19 Letters

The **outraged**, the **outrageous**, and the **'out to lunch'**.

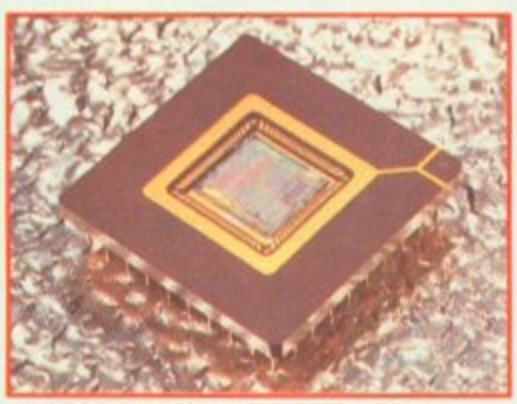
146 The Blitter End

ACE **goes out in style** on the last page of its biggest issue yet, and the editors get carried out in a **box**...

SPECIALS

26 Game of the Future

A **hard-headed look** at what you can expect on your screen in the not-so-distant future. Transputers, object-oriented games, ray tracing, super blitters...Andy Wilton squeezes **facts** from science **fiction.**



Inmos' chip of the future – we check out its games potential.

95 Christmas Crackers

Compilations can get you **classics on the cheap** — sometimes as many as a **dozen** for the price of a **single new release**. ACE takes the **chance** out of **choosing.**

104 Universal Military Success?

Can Rainbird's **Universal Military Simulator** do for war-gaming what **Lords of Midnight** did for strategy and open up a whole new market?

SIGHT...

34 Computer graphics '87

We **drool** over the Ferraris of the computer graphics world as Chris Jenkins checks out the **Computer Graphics '87 Exhibition.**

The Access TV ad – probably not done on a Spectrum...

36 Gold Standard

Television is becoming a **showcase** for some of the most advanced computer graphics applications. We sit in on the **creation** of Yorkshire TV's **Gold Chevron logo**.

...AND SOUND

46 Keyboard Cavalcade

Make it a musical Christmas with our **exhaustive survey** of **affordable MIDI keyboards** – Good King Wenceslas will never sound the same again!

48 MIDI Matters

Mark Jenkins concludes our **MIDI Made Simple** course, and we introduce our **MIDI Panel of Experts**.

GAMEPLAY

69 Christmas Screen Test

The proof of the Christmas Pudding is in the eating – we **pull the crackers** and **stuff the turkeys**.

Page 68...*Nebulus* – Hewson's Tower of Power.

Page 60...Microprose's *Stealth Fighter* – Wild Bill sneaks up on the opposition.

41 Arcade Ace

Squash the Squidoids in *Xenophobe*, or go **spectre splatting** in *Ghostbusters*.

87 Version Update

Catch up on the latest conversions for your machine, including ***Super Sprint*** for the Amstrad, ***Leviathan*** on the Amiga, and PC ***Gunship***.

109 Tricks 'n' Tactics

High-flying performance in *F-15 Strike Eagle*.

Conquer the hi-score tables with top tips and pokes on ***Plexar***, ***Jack the Nipper II***, ST ***Gauntlet***, ***Super Mario Brothers***, ***Renegade***, ***Super Sprint***, and more.

61 Adventures

The Pilgrim plucks your heart-strings with Infocom's ***Plundered Hearts***, grapples with ***Nord and Bert***, and goes far, far ***Beyond Zork***.

BUY LINES

120 Special Offers

Up to **£4 discount** on each of the games listed here. Chuck your **stocking** out of the window and grab a **pillowcase** instead.

119 Subscription Offer

This magazine is **going places**. Make sure you don't get **left behind**...and grab an astonishing **£10 extra discount** off those mail-order bargains at the same time.

COMPETITION

32 Christmas Casio Compo

In conjunction with Casio, ACE brings you the chance to walk away with either a **DG20 digital guitar**, or the latest **MT600 MIDI synthesiser**.

123 ACE PINK PAGES

At last! The **definitive buyer's guide** to the world of home computing. The **games** AND the **machines** to play them on, updated monthly by the **people who know** for the **people who matter**. So just sit back, and let your **pinkies** do the walking.

Welcome...

...to our biggest issue yet. We may only be four this month, but already some of the ACE staff feel as if they're in line for a telegram from the Queen.We thought we'd take a quick break to fill you in on what's going on...

First, there's the ACE **Pink Pages**. We've long felt there to be a real need for a proper consumer guide to the home micro industry...now there is. Whether you're after games or a new computer, these pages will point you in the right direction. This isn't just a one-off – the Pink Pages will be there every month, whenever you need them, and always bang up-to-date. What's more, from next month we'll be including peripherals as well.

Secondly, there's the ACE **1988 Diary**. We thought it would be good to get something on the cover that lasted a little longer than your average free gift – we hope the 'lasting interest' on this one will take you through to Christmas 1988, which gets it a very respectable PIC curve, and an ACE Rating in the high nine hundreds.

Thirdly, even though this is our **biggest and best issue** yet, we're beavering away on a whole host of projects for the coming year. We're playing things close to our chests just now, but stand by for a series of innvoations that will not only give you a bigger and better magazine, but also one in which you, the readers, can become more closely involved.

Finally, we want to thank YOU for the best Christmas present we've ever had – the enormous response we've had from readers has proved to us beyond doubt that there IS a market for intelligent, insightful, and entertaining coverage of home computing. Stick with us – we won't let you down.

● **The ACE Team**

ADVANCED COMPUTER ENTERTAINMENT

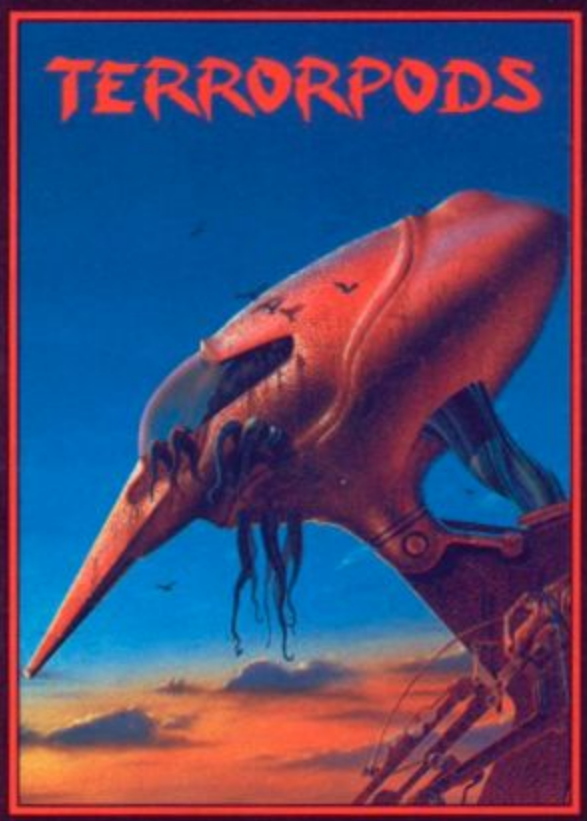
Future Publishing
4 Queen Street
BATH BA1 1EJ
☎ 0225 446034
Fax 0225 446019
Telecom Gold84:TXT152
Prestel/Micronet 045 874 011

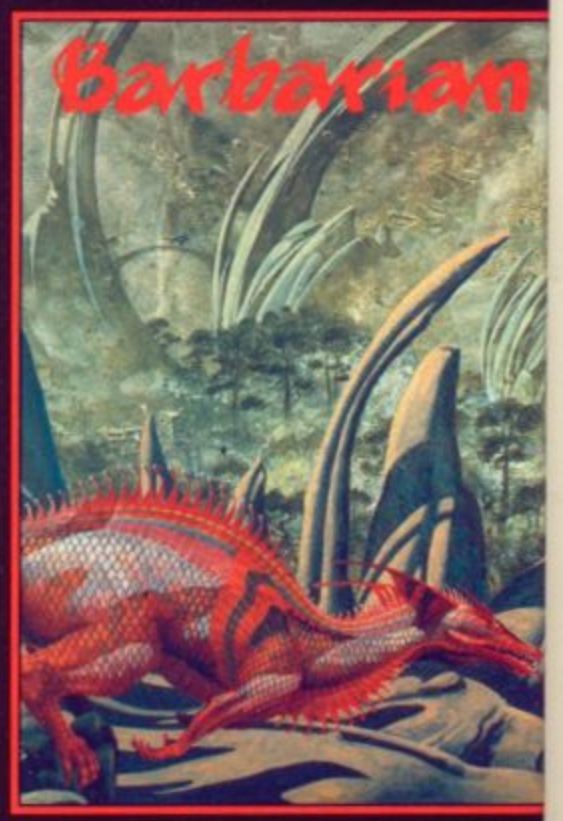
ACE

Co-editors Peter Connor Steve Cooke
Reviews Editor Andy Wilton
Staff Writer Andy Smith
Art Editor Trevor Gilham
Publisher Chris Anderson
Advertising Manager Jon Beales

COVER PHOTOGRAPHY Stuart Baynes Photography, Bath, ☎ 0225 66343 ● **SUBSCRIPTIONS & SPECIAL OFFERS** Carrie-Anne Porter, **The Old Barn, Somerton, Somerset TA11 7PY** ☎ 0458 74011 ● **COLOUR ORIGINATION** Wessex Reproduction, 352a Wells Road, Bristol BS4 0QL ● **DISTRIBUTION** SM Distribution, 16/18 Trinity Gardens, London SW9 8DX ☎ 01-274 8611/5 ● **PRINTING** Chase Web Offset, Plymouth ●

Copyright **FUTURE PUBLISHING LTD 1987** ● No part of this publication may be reproduced in any form without our permission.





OBLITERATOR

You are Drak the Last of the Obliterators, a genetically enhanced and awesome fighting machine, bio-engineered for the execution of incredible tasks, the ultimate solution to the most cataclysmic of predicaments.

In the voids of Federation space an alien cruiser has materialised. It is a ship of sinister and foreboding power. Federation defences have been smashed. Earth lies exposed, there is only one hope and you are it!

Summoned by the Federation council, your assignment is to use a prototype matter transporter to infiltrate the alien cruiser. Armed with a particle beam disrupter, lasers and whatever the alien habitat can provide, you must cripple the alien vessel thus enabling its destruction.

What awaits? What technological perils and strange diabolic adversaries will try to thwart you in your mission?

Can you become Drak the Last of the Obliterators? Can you survive? Can you overcome such unthinkable odds?

COMING SOON

TERRORPODS

Its been a long watch .... As the sun disappears over the horizon, the uninviting, grey bleakness of Collan becomes apparent. Following the intense heat of the day, the onset of night adds the bitterness of sub-zero temperatures to an already hostile environment, and the stark interior of the D.S.V. appears almost homelike.

Deep melancholy is suddenly smashed by the shrill scream of a siren. The status panel has gone crazy, an extraordinary array of lights flash uncontrollably. Good grief . . . what's happening?

Frantically, you turn to look at the command scanner, hunting through the mass of information before you, in a desperate attempt to decipher what has happened.

Your whole being freezes . . . It can't be! The Terrorpods . . .

AVAILABLE NOW

BARBARIAN

Can you become Hegor the famous dragon-slaying, monster-mangling Barbarian?

Are you the warrior who can enter the fearful realms of the underground world of Durgan, a world terrorized by the evil Necron?

Can you handle the adventure, the frenzied attacks, the hidden traps, the gruesome death dealing monsters? . . .

Your quest; to destroy the lair of the accursed Necron. Your prize; the kingdom's crown.

Your task is awesome! You must live on your wits, conquer your innermost fears, use every skill and weapon available to you.

Hideous perils await. Can you survive? . . .

Are you Hegor the famous dragon-slaying, monster-mangling Barbarian?

AVAILABLE NO

Psygnosis
FREEPOST
Liverpool L3 3AB
United Kingdom
Tel. No: 051 236 8818
Fax: 051 207 4498
Telex: 629474

ACCESS VISA

OBLITERATOR	— £24.95
TERRORPODS	— £24.95
BARBARIAN	— £24.95
DEEP SPACE	— £24.95
ARENA	— £24.95
BRATACCAS	— £24.95
ARENA/BRATACCAS	— £29.95

All available for 512k colour, Atari ST, Commodore Amiga.

ACE NEWS

TELLY TIE-INS

If it moves – license' it seems to have become a software adage in the past three years. In the coming months we'll be seeing an increase in the number of titles culled from the TV screen, after what is generally termed a "poor start" in this field. Remember *Knight Rider*? *SuperGran*? *It's a Knockout*?

Until recently, the field has been almost exclusively left to micro versions of (mainly American) cartoons, such as Thundercats, Centurions, Gobots and Road Runner. Many of these have additional links – arcades, comics, toys – and the TV origins are emphasised less in the micro conversions.

The new batch is led by Domark, which has taken over the defunct Macsen range, including *Blockbusters*, *Countdown*, *Bull's Eye* and other quiz games.

Domark has created a new label, TV Games, for the titles and is concerned that the games should capture the atmosphere of the original – so much so that they've sent *Blockbusters* out to programming team ODE for a complete rewrite. Domark's Mark Strachan claims that the rewrite is to update rather than improve the original code and questions contained, but he does admit that Domark didn't take up an option to sell Macsen's *EastEnders*, because 'it was just so dreadful".

Domark plans to release four or five titles a year on the TV Games label, the first of which will be *The Krypton Factor* with *Every Second Counts* appearing in the New Year.

Although the company is leaning towards quiz programmes at the moment, Mark Strachan says that 'we'll look into any games that are popular at the time' and cited *Blind Date* and a new programme *Strike It Lucky* as shows whose computer potential had interested him.

Piranha enjoyed some success with a micro version of the children's cartoon series *Trap Door*, and plans to release a second Trap Door game to coincide with the new TV series next year. 'The humour in the show and the nature of the characters leant itself to the computer," commented Piranha's Helen Holland.

The ones we'd like to see

If you can make a game out of *Blockbusters* then you must be able to make a game out of just about anything. Here are a few programmes we'd like to see become programs:

Breakfast Time – you'll need Amiga graphics to really get the benefit of Frank Bough's pullovers

The Epilogue – Bishop Rambo runs amok with his deadly crozier

Wogan – can you out-talk Terry over a year of gruelling shows?

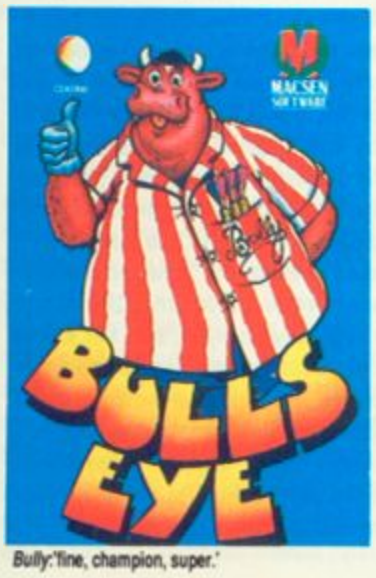
Floyd on Fish – fillet as many turbot as you can in the time limit; but make sure you keep your wine glass topped up!

Blue Peter – 'and here's a game I saved earlier'

Coronation Street – Newton and Ridley are on strike; you, as Ena Sharples, race against the clock to find a bottle of milk stout.

Saint and Greavsie – 'a game of two halves. But the lad done well, di'n't he Saint?'

A digitised Bob Holness is the gruesome prospect now facing purchasers of the game.



Bully: 'fine, champion, super.'

Code Masters Plus

Not content with selling a lot of budget titles, Code Masters are now launching a range which – by their standards – amounts to full price. *Code Masters Plus* games will sell at £4.99, with the extra three quid justified by the inclusion in the package of two cassettes. These will contain two versions of the game – 'expert' and 'ordinary'.

The idea, according to Code Masters' Minister without Portfolio Bruce Everiss, is that the expert game is unplayable until you've mastered the ordinary version. On loading the the advanced tape, you'll be presented not just with a tougher game, but with additional scenarios.

The Plus range is due to be launched in early December with *Jet Bike*, by the Oliver twins, on Amstrad and Spectrum at £4.99.

Also expected shortly from Code Masters are ST and Amiga versions of *Grand Prix Simulator*. The price isn't yet established, but is likely to be £9.99.

Knightmare

Also coming up is the micro version of *Knightmare*, the successful Anglia TV role-playing/adventure programme. It should be out now-ish for the Spectrum, Commodore and Amstrad, and for the Atari ST in January.

The job of converting *Knightmare* has some added difficulties, however. *Knightmare* the TV show already uses computer graphics, but from two Spaceward Supernova computers, which are rather more powerful and suited to the job than your average Spectrum.

Programming team Focus has attempted to circumvent this by concentrating its efforts on the plot and storyline. Nick Cooke of Focus explained; 'In essence, we've tried to capture the feel of the programme. It's presented as an interactive book, with pages turning for each change of location. There's quite a mixture of styles – you could play it more as an arcade bash, or treat it as a puzzle-solving arcade adventure."

In the game, you will play the adventurer, while the team of human advisors in the TV show has been replaced by 'good' and 'bad' oracles, whom you can consult for advice at any stage. The 'good' oracle will usually counsel caution, the 'bad' will urge you to take a more physically perilous course of action – and neither is right the whole time.

The *Knightmare* TV series has now finished and it is not yet certain whether there will be a second series next year. However, estimated figures show that the TV show gained an audience of around 4 million per episode – one of the highest ever for an ITV childrens' hour programme – so the prospects of a second series must look rosy. Not to mention *Knightmare – The Game Part 2*.

Flo and Andy face to face

ANDY CAPP

Everyone's favourite layabout should be available on micro by mid-December. And who else would it be from but Mirrorsoft? Your aim is to survive a week in Andy's tough life; that means getting and staying drunk, scrounging money, cheating on your wife Flo', spending time in the betting shop and dodging the rent man. Development house Blitter Animation are keeping tight-lipped about how you actually play the game, but they will reveal that it contains a certain amount of 'cartoon-style' violence as well as multiple-choice menus.

Talking computer

Using computer technology is no joke if you're blind; even if you can touch-type, you can't see the screen to check if you've typed the right letters. So until now the blind have been stuck with cumbersome braille typewriters. The Eureka A4 computer, however, is set to change all that; it speaks – and it's been described as 'the most significant breakthrough for the blind community since the invention of Braille.'

The very compact box contains a braille keyboard and function keys, and has a built-in word processing package. As letters are keyed in the speech circuitry repeats to the user what letter has been typed. Furthermore, the Eureka can be connected to an IBM-compatible PC to allow the blind to use the same screen-oriented programs as the sighted.

The machine, designed by a Czech exile and built in Australia, is marketed in the UK by Techno-Vision Systems. It should cost around £1400.

Super-tape kills CD?

Just when we were getting used to spinning a mere 500 megabytes around inside our state-of-the-art CD ROMS, the boffins come up with Digital Audio Tape – a little widget half the size of a normal music cassette that holds an awesome 1.2 **gigabytes**. Your little pocket calculator probably can't handle sums that big, but roughly speaking it's about 1258291200 bytes, the equivalent in memory terms of just under 75 million ZX81s (*with* the RAM pack).

Since the search for a reliable read-write CD ROM has been a difficult one, and the prices are around £3500 for a drive and £100-plus for the blank discs, you can see why DAT, just introduced in Japan at around £950 plus £10 for blank tapes, is a smidgin more attractive. True, these systems are for music use, but the technology carries over very easily into the computer arena.

Super cassette, super tape, super price....Hewlett Packard's DAT cassette is half the size of a standard music cassette, but holds 1.2 gigabytes (1258291200 bytes) and can access any file within 20 seconds.

Head in a spin

The system works by recording data onto tape using the same method as that employed by video recorders. Instead of laying the information down in a long line along the length of the tape, the data is recorded on a helical scan basis, laying tracks across the tape using a rapidly rotating recording head. The digital format not only eliminates 'noise', but also offers frequency and dynamic ranges even higher than compact disc.

Hewlett-Packard currently have a co-development deal with Sony to produce a DAT unit and although this could end up costing around £3000, the idea is that volume sales in the music industry could lower the cost of production and these lower costs could then benefit the computer market. Also, let's not forget that a price tag of three grand is not out of character with Hewlett Packard, who are not renowned for their presence in the budget market. Get someone like Jack Tramiel on the job and things could really start spinning. Typical applications would be the storage of digitised pictures, as well as audio and data information – just what we were going to use CD for, but perhaps never will.

Piracy

Of course there's a bug in the lettuce. At the time of writing Sony have delayed the launch of their Digital Audio Tape unit in the face of mounting opposition from the music industry, who believe the system will be used for pirating music from compact disks. We don't recall this sort of problem stopping the introduction of music cassettes – would it be unfair to suggest that this is because DAT is a Japanese import and an area in which European firms lag far behind?

In the meantime, the wrangle over DAT in the music business is going to set back any plans to transfer the technology onto computers. Sanyo, Aiwa, and Hitachi are all waiting for the go-ahead to release their DAT music systems over here (already on sale in Japan), but until the fuss dies down their seems little likelihood of any real headway being made in either music or computing.

Infocom revolution

Infocom are dropping their prices to £19.99 for most titles and £24.99 for the 'top-end releases'. Previous price levels ranged between £24.99 and £34.99.

The company are also promising some 'revolutionary releases' in the New Year, but lips remain sealed for the time being. We're putting our money on graphics-based games, since the company is known to have been impressed by the Magnetic Scrolls products and have recently included rudimentary graphics (on-screen mapping) in their latest game *Beyond Zork* (reviewed by the Pilgrim in this issue).

Bad news however for Amstrad owners. Recent Infocom releases for the CPC range have been regularly delayed, and the whole question of Amstrad Infocom products is under review. Will the company continue to support the 8-bit Amstrad machines? Probably not admits Activision's Clare Hirsch. Better start saving for something beefier, chaps...

Not for CPC owners?

Virgin marries Mastertronic

While Mastertronic were steadily increasing their interests in the computer entertainment field (see last month's Mastertronic Empire Building story) little did we know that Mastertronic themselves were being wooed – and won – by Richard Branson's Virgin.

The records/ computer games/satellite TV/publishing conglomerate paid millions for a 45% stake in the budget and arcades company. Virgin's Nick Alexander explained the move in terms of Mastertronic's expertise in fields where Virgin is inexperienced – notably, budget software, arcade machines and the US distribution of software.

The first fruits of the liaison for the UK software buyer are likely to be a budget version of Virgin's hit *Dan Dare* game; don't be too surprised if other Virgin titles find their way on to Mastertronic's list.

Dan Dare: first Virgin game to go Mastertronic

Virgin's Way Forward

Virgin are rather more deeply involved in the consumer exploitation of new technology than a look at *Action Force* or *Rebel* might suggest. Richard Branson now has interests in satellite TV, electronic publishing, traditional publishing, computer games, CD-ROM and interactive video.

In fact, so interested is the company in these fields that they've just appointed a general manager for their Interactive Video Division. William Beckett's first production for the company is an educational game based on Sir Ranulf Fiennes' Transglobe Expedition, which traversed both Arctic and Antarctic regions.

This educational 'game' will be available initially only for the BBC master system – to take advantage of the equipment many schools have installed in order to run the BBC's *Domesday* project (a latter-day' version of the Domesday book, with a plethora of maps and statistics, as well as 52,000 digitised pictures, on two laservision disks).

Richard Branson in what may well be a computer-designed and knitted pullover

Beckett describes the Transglobe program as a 'multiple role-playing adventure' whose educational value lies in the need for the players to plan, navigate and cope with meteorological and logistical factors. With 75 minutes playing time per side and up to 50,000 digitised piccys, it sounds well worth a go.

But are we likely to see anything like it for home consumption on other machines? Beckett thinks so – but probably not for a couple of years. Even then, because the technology is in its infancy, both the hardware and the software are likely to be pretty expensive; the disks could well cost between £50 and £200, while you would also need a laser disk player to interface to your micro. But new technology has a habit of falling rapidly in price if enough people want to buy it, and it may not be too long before you"ll be able to explore the frozen wastes from the comfort of your own armchair.

Snippets...

Star Wars
Domark

Spectrum	£9.95 cs	
C64	£9.95 cs	£12.95dk
Amstrad	£9.95 cs	£14.95dk
Atari ST	£19.95	

Take control of your X-wing fighter in this conversion of a four year old coin-op. Blast the Empire's fighters before you penetrate the defenses of the Deathstar. You'll still need the Force with you if you want to hit that elusive exhaust duct. Should be in the shops as you read this.

Demon Stalker
Electronic Arts

C64 £9.95 £14.95 dk

This one or two player arcade action game offers the player 99 challenging levels of mazes, monsters, magic and messages. Make it to level 100 and you'll find Calvrak the Demon ready for battle. Should be available in time for Christmas.

Octopolis
English Software

C64 £9.95 cs £12.95 dk

Combining parallax scrolling shoot-'em up with challenging platform encounters – plus monsters and evil eyes. This one or two player number should be on the streets for the start of the new year.

Cosmic Causeway
Gremlin

C64 £9.99 cs £14.99 dk

This follow up to the highly successful *Trailblazer* game features multi-directional scrolling and the chance for the player to buy some useful bonus which could get him out of a tight spot. Should be in the shops as you read this.

Resolution
Nexus

Spectrum price undecided

Bo Jangeborg's latest is definitley not another *Fairlight. Resolution* is a strategic, horizontally-scrolling shoot-em-up in which the player tries to save the world from a manic mining corporation determined to destroy all the Earth's natural resources.This environmentally sound game should be available in time for Christmas.

Tetris
Mirrorsoft

Spectrum	£7.95 cs	£12.95 dk
Amstrad	£8.95 cs	£12.95 dk
C64	£8.95 cs	£12.95 dk
IBM PC	£19.95 dk	
Amiga	£19.95 dk	
Atari ST	£19.95 dk	

This abstract shape manipulation game, played in real time, should be headed our way at the start of the new year.

Platoon

Spectrum	£7.95 cs	£14.95 dk
Amstrad	£8.95 cs	£14.95 dk
C64	£8.95 cs	£12.95 dk

The licensed conversion of Oliver Stone's blockbusting film of American Army life during the Vietnam War should be hitting the streets, deck, dirt or whatever in the new year.

Earthlight
Nexus

Spectrum price undecided

Pete Cooke's follow-up to *Micronaut 1* is a horizontally-scrolling shoot-em-up viewed in three dimensions. The game allows the player to move his craft from the foreground to the background of the screen. Set on the moon, *Earthlight* should be out in time for Christmas.

T-Runner
Nexus

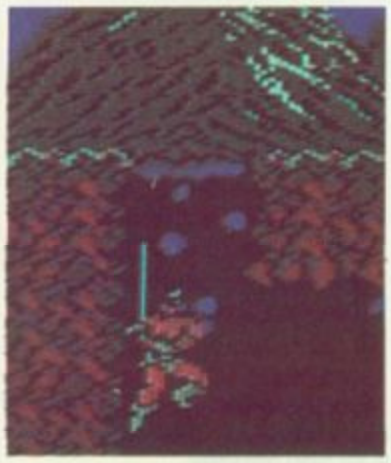
C64 price undecided

Set on a Marines training platform in space, this arcade adventure gives the player a *Marble Madness*-type view of the game area. After 300 years of lying idle, the central computer has gone haywire – and it's up to you to sort it out. Should be ready for Christmas.

Rastan Saga
Imagine

Spectrum	£7.95 cs	£14.95 dk
Amstrad	£8.95 cs	£14.95 dk
C64	£8.95 cs	£12.95 dk

Hot from the arcades, *Rastan Saga* puts the player in control of the muscle-bound, long haired, sword-wielding hero of the arcade machine. Look out for it leaping onto the software shelves at Christmas



MEN ONLY ?

Why the girls aren't joining in the fun

Anita Sinclair – 'cannot stand or tolerate feminism in any form'

The nation reeled in amazement on Wed 11th November when it was revealed that Debby – in the *Brookside* spin-off *Damon and Debby* – was writing a computer game. Coming soon to an Amstrad on the telly could be Debby's *True Romance*, a Mills and Boon-ish game – aimed at girls.

Is it just a coincidence that Infocom's own game for girls, *Plundered Hearts* (see Pilgrim this month) is coming out right now? And does all this feminine activity mean that women are becoming more involved in the playing and the production of computer games?

Certainly, there's a lot of female participation in the adventure game world. Magnetic Scrolls, with *The Pawn*, *Guild of Thieves* and now *Jinxter*, have shot to prominence in the past couple of years; and the brains behind Scrolls is 25-year-old Anita Sinclair. She reckons that women comprise about 25% of the Magnetic Scrolls audience, and further suggests that women make 'better adventurers than men.' As for herself, she admits to having written a couple of arcade games, but will not reveal their names.

Does she feel that her sex has hampered her career in the games biz? Not a jot – in fact, 'I've had more doors opened for me because I'm a woman", she says. Anita has a pretty low opinion of *Plundered Hearts*, calling it 'one of the worst games ever written', largely because she sees it as a a cynical and patronising marketing device to exploit women consumers. Not that Ms Sinclair sees herself as a feminist; 'I cannot stand or tolerate feminism of any form', she says.

Anita Sinclair doesn't have much time for arcade games; neither does ACE adventure columnist Pat Winstanley. She thinks women prefer adventures because they 'demand thought' and they're something you can stop and start with ease.

One of the few women making a living from developing arcade games is Hanan Samara, who runs development house Dalali (responsible for such recent games as *Mean Streak* and *Yogi Bear*). Even she, though, doesn't really gop on for playing arcade games; 'I prefer the design more than anything else'.\ Although there are plenty of women programmers around, most of them tend to work in the field of business software.

For the time being, at least, the boys are running the game.

Hanan Samara of Dalali – Britain's only woman arcade games programmer

Games for girls

The only recorded instance of games aimed specifically at girls that we can remember is the CCS range called – with stunning simplicity – Games For Girls. This series of arcade adventures was targetted at 7-11 girls: *Jungle Adventure*, for instance, set the heroine a perilous task in the African jungle.

The series was not a success. It was ridiculed in the computer press, and had little or no impact with girls – perhaps because the high street stores declined to stock the game. And if the high street stores won't stock them how can little girls buy them?

Trish Walters of CCS reckons that the situation hasn't changed from four years ago; very few girls play computer games, or are interested in doing so.

Telecomsoft comp – the winners

That massive software prize – every Telecomsoft release for your machine for a year – has at last been won. We reckon that entries ran to well over 5,000, an indication of just how exciting the prizes were. So, without further ado, here are the four winners:

Amiga owner R. MILES of Telford

ST owner GARY WHITEHALL of Glasgow,

64 owner KEVIN STEWART of Grimsby

64 owner PAUL GREAVES of Chesterfield

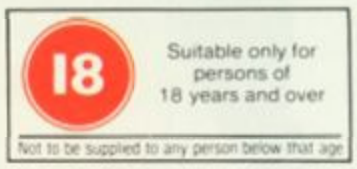
All four of them can look forward to a feast of software over the next 12 months.

'Orrible murders

CRL have cooked themselves up a nice little publicity-spinning controversy with their *Jack the Ripper* game (written by those eccentric ladies of St. Bride's). The recipe's pretty simple; get yourself a gory game, go along to the British Board of Film Certification and ask them to certify it, then make a lot of noise because they say it should be for the over-18s.

CRL are no stranger to this tactic; they took previous releases *Dracula* and *Frankenstein* along to the film censors as well, and duly got their certificates (and publicity). Their new game breaks new ground – or plumbs new depths, depending on your point of view – in the graphics depiction of scenes of revolting violence; the screenshot that came through with their press release showed a disembowelled naked woman, with mutilated breasts, spilling blood all over the place.

There's no doubt, of course, that the game *shouldn't* been seen by under 18s. But placing a sticker on the package saying as much is more than likely to have quite the opposite effect. And producing it on the C64 and Spectrum means that there are an awful lot of under 18s around who could play it – if they wanted to; but, *of course*, once they see the certificate nobody under 18 is going to try to buy the game, are they? And, of course, no shopkeeper is going to sell it to anyone under 18.



The authors of the program – those ladies of St. Bride's – disclaim all responsibility for the graphics; their input, they say, was confined to the text. Not that St. Bride's Priscilla Langridge is taking accusations of bad taste lying down; she defends the game as being an attempt to 'recreate the atmosphere of the times' and as portraying the 'struggle between good and evil' – as opposed to the 'moral anarchy' of the arcade games. The St. Bride's slant on the well-worn tale comes courtesy of 'a clairvoyant friend'; the theory runs that the murders were the work of a diabolical sect engaged in ritual sacrifice.

At ACE we haven't yet been able to pass definitive judgement on the game – neither copy we had received at the time of writing wanted to load – but The Pilgrim will speak in our next issue.

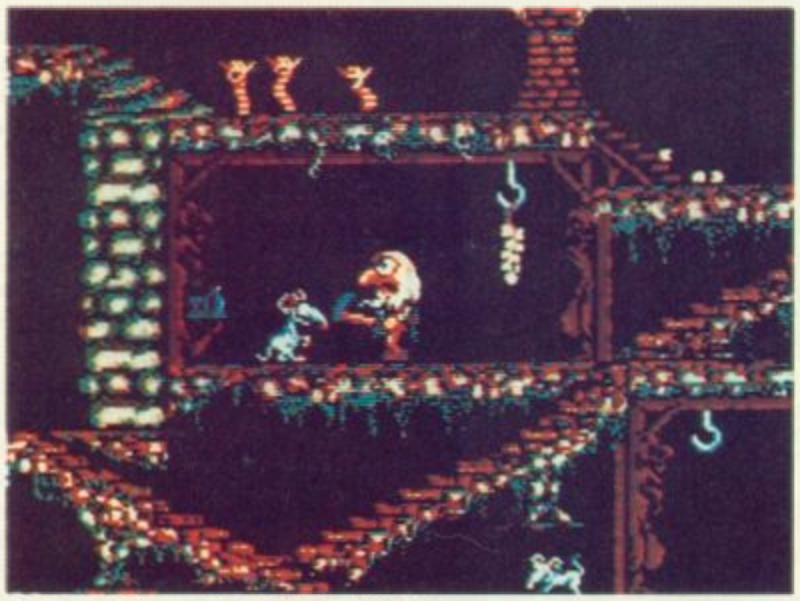
That 18 Certificate

According to James Firman, Director of the British Board of Film Classification, the Video Recording Act *does* cover computer games; producers, he says, are *obliged* to submit for classification any game containing scenes of mutilation or gross violence involving human beings or animals. CRL's program certainly fits the bill.

The 18 certificate, says Mr. Firman, means that any shopkeepers selling the game to under-18s will be liable to prosecution and could be fined up to £20,000 – if found guilty. To the best of our knowledge, however, no computer game has yet been the subject of such legal action. At the moment it is the job of the Police to enforce the act; but if, as seems likely, local authority Trading Standards Officers take on the responsibility we may well see a more vigorous attitude – and perhaps the first Computer Game Nasty prosecution.

SCORE 0
TIME 75
L H
SPEED
START
Space Harrier
Wonder Boy
SEGA
SEGA MASTER SYSTEM
Sega games
A huge range, including "Space Harrier" and "Wonder Boy" from £14.95 each
Sega Light Phaser
For use with Master System. Test your marksmanship, firing with light. Includes free game.
£44.95
The Sega Master System
Complete and ready to use – just plug into the TV. Includes games console, 2 control pads, a built-in mystery game, plus a FREE copy of the hit game "Hang On"!
£99.95
GET INTO OUR GREAT RANGE OF GAMES THIS CHRISTMAS!
Woolworths has got more video games than your average arcade, plus a huge choice of computer games too. So now you can enjoy an action packed Christmas in the comfort of your own home.
All games available on Spectrum, Commodore and Amstrad.
10 HIT GAMES
20 EXCITING EVENTS
ocean
Game, Set and Match
computer games set.
Contains 10 games
£12.95
SOLID GOLD
GAUNTLET
ACE OF ACES
Solid Gold
computer games set.
Contains 5 games.
£9.99
Elite Collection
computer games set.
Contains 8 games.
£14.95
THE elite COLLECTION
WOOLWORTHS
is Christmas
All items subject to availability.
Larger stores only.

FASTEN YOUR SEAT BELT...

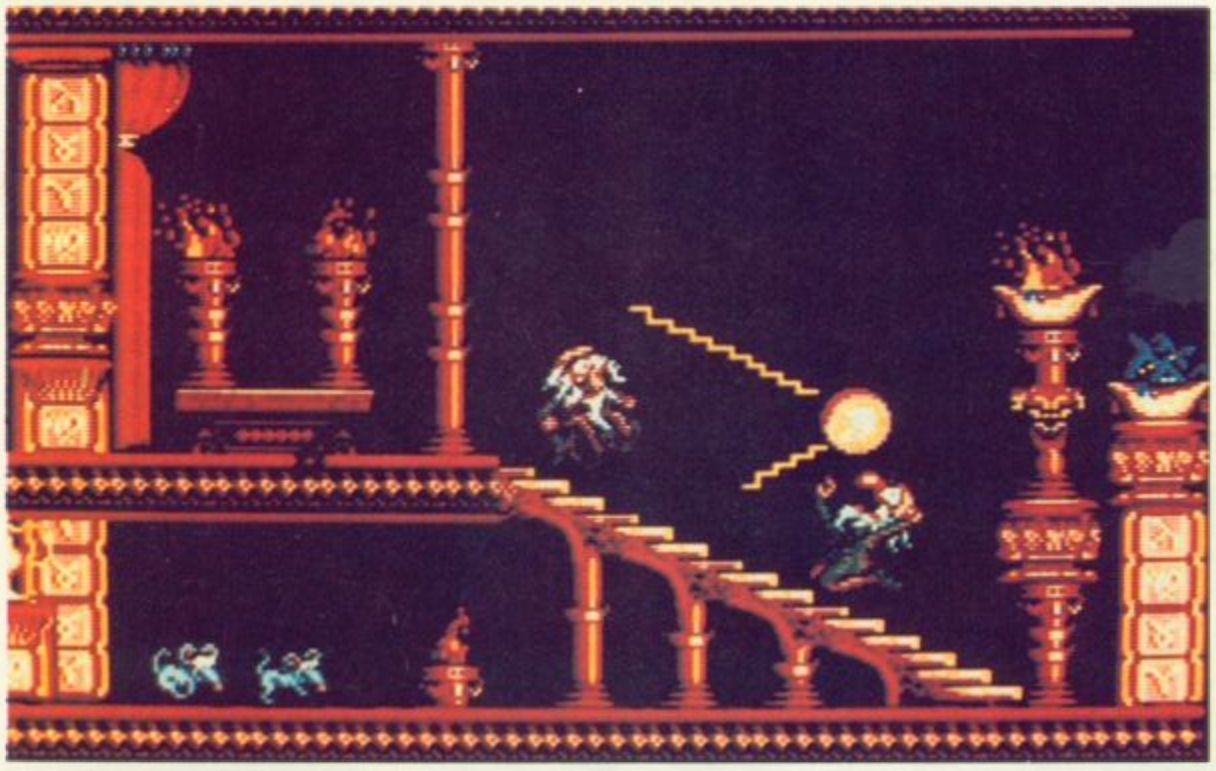


(ST) Are those things vampire rats? Give 'em a kick, just in case.

Vampire's Empire

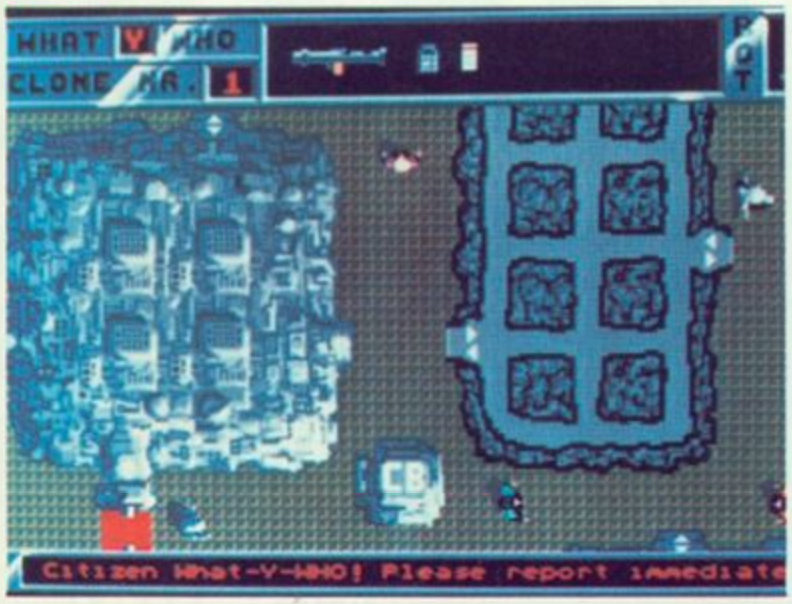
Magicbytes

It's that oh-so-new Ariolasoft label again, with a Made in Germany platform epic for C64, Spectrum, Amstrad, ST and Amiga. If the gloomy atmospherics of these screens are anything to go by, the game's graphics should match its Draculanian theme very nicely. *Vampire's Empire* is due out in January, so start sharpening your stakes right now!



(ST) Big trouble in little Transylvania: I wish I'd brought that garlic now!

...and prepare for take-off! These little babies are queuing up on the runway right now, and should be reaching for the skies from a shop near you in the next couple of months. Check out next month's ACE for the definitive reviews...

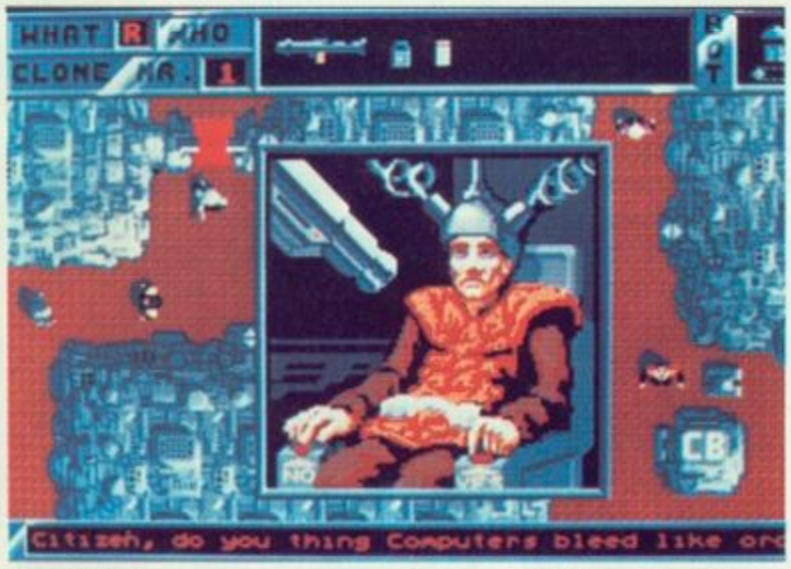


(ST) The computer issues a summons: I think it means you!

Paranoia

Magicbytes

Yet more from those prolific Germans, courtesy of the equally prolific Ariolasoft. This time the setting's an oppressive future world from which you must secretly plan your escape.
Deceiving the state's a risky proposition, so mind the central computer doesn't catch you at it! The game's due out for all major micros some time in January.



(ST) The 64,000 volt question: get the answer wrong and you really won't like the consolation prize.

Out Run

US Gold

This incredibly long-awaited coin-op conversion hits the streets on C64, Spectrum, Amstrad and ST very soon, and it's still not clear how the home micro versions will measure up to the original's very high standards. The nearest thing we've seen to a finished product so far is a C64 version with a very nice feel for speed and gradient along with some impressive trackside features - palm trees, spectators and the like - but still no gameplay. The production version'll have a tape of the original arcade music, so *Passing Breeze* fans won't lose out even on the Spectrum. But will mechanical violence fans be satisfied by the high-speed crashes? Wait and see...

(C64) Overtaking a Beetle (or is it a Fiat?) on the rock-lined highway of Stage Three

Grand Prix 500cc

Loriciel

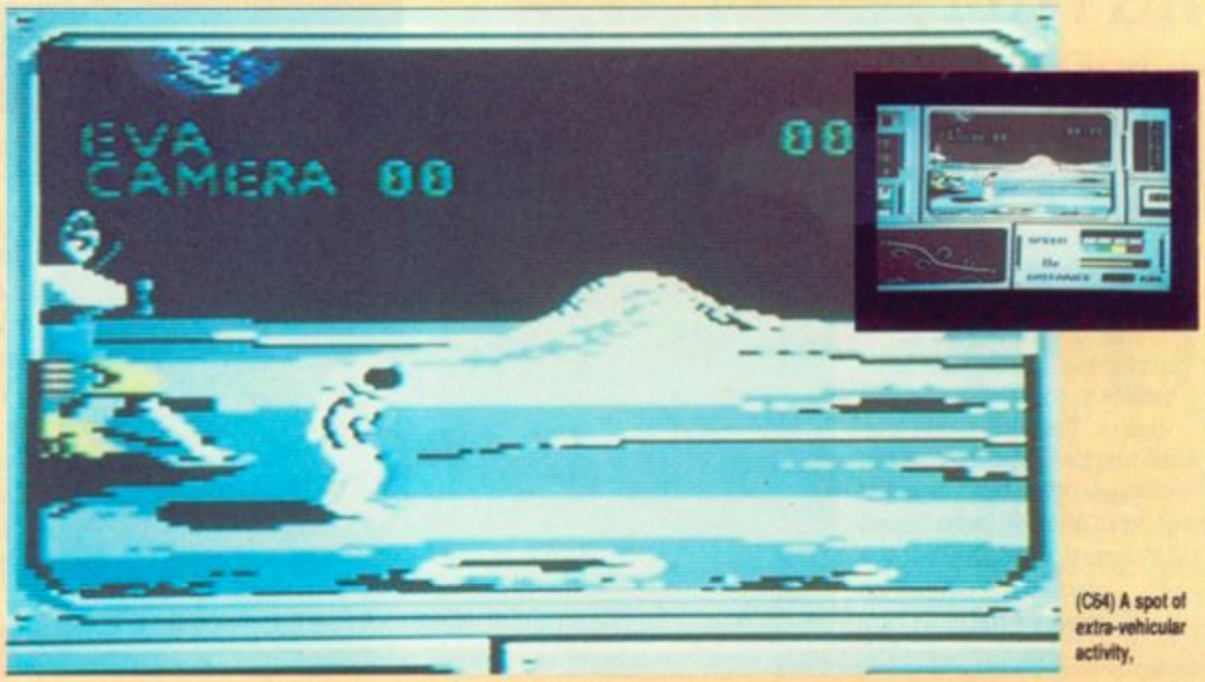
Yet more racing action on the way, this time from across the channel. Tear round the world's Grand Prix circuits on your half-litre bike, striving to outdo computer opponents or a fellow human being on your ST or PC.

(ST) Burning rubber at Silverstone.

Apollo 18 – Mission to the Moon

Electronic Arts

US computer game patriotism may lead to some pretty grotesque re-enactments - bombing Libya *again*, for crying out loud - but this Accolade title proves that it can also produce some commendable ones too. The NASA Apollo programme might have ended back in the early seventies, but that final mission could be lifting off on your C64 real soon now. From countdown to splashdown, the moonshot's in your hands.



(C64) A spot of extra-vehicular activity.

(C64) A pre-production version, with a few features still to be added. Who needs hoops anyway?

Basket Master

Ocean

Spanish sideways scroll specialists Dinamic turn their attention to indoor sports with this forthcoming basketball sim. One-on-one B-ball's a far cry from *Freddy Hardest* or *Game Over* of course, but there are certainly signs of the same graphic flair here. (If you'd still rather shoot bad guys than baskets, watch out for Dinamic's *Navy Moves*, also due out from Ocean early in the New Year.)

Masters of the Universe

Gremlin

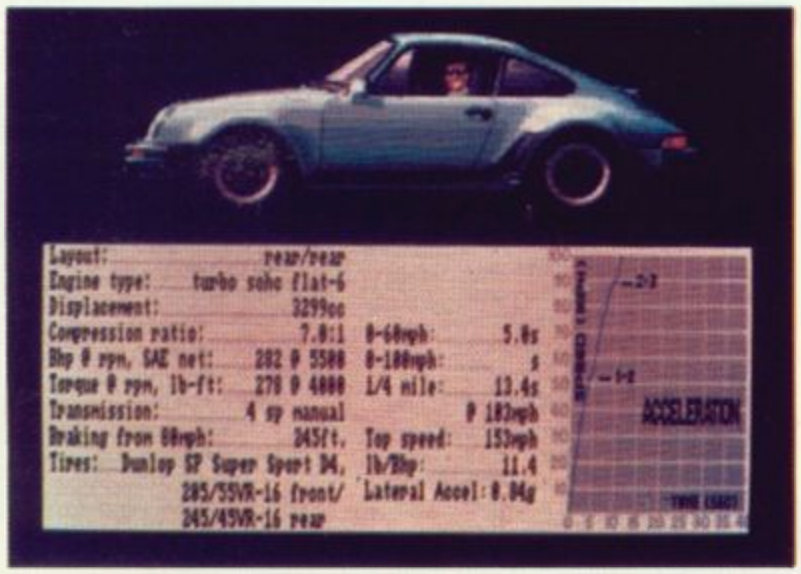
Based on the forthcoming Dolph Lundgren film, this new tie-in follows cartoon character and sometime plastic toy He-Man as he and his companion Teela battle the forces of the arch nasty Skeletor in (of all places) modern day California. If you've got a Spectrum, C64 or Amstrad you can defend the universe from evil later this month.

(C64) He-Man battles it out with the forces of evil in a dark alley. ▼

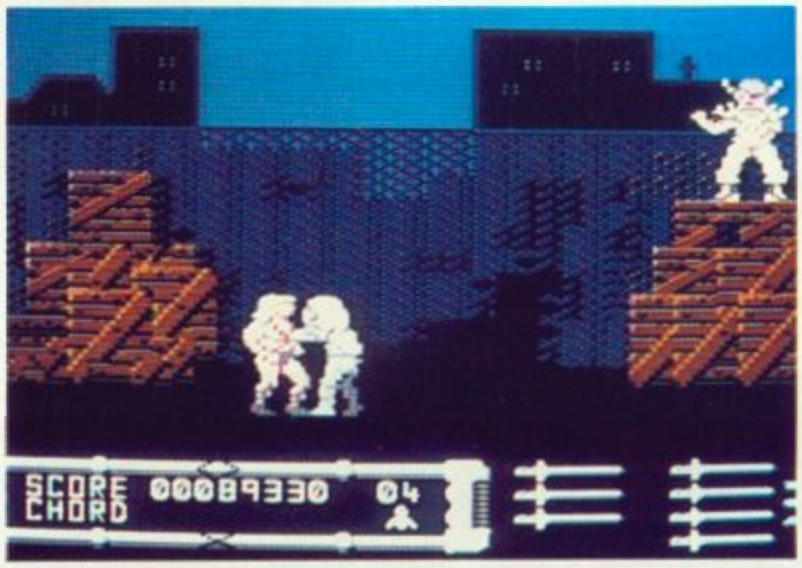
Test Drive

Electronic Arts

Driving games are all the rage right now, but Accolade have come up with a new angle on the genre with this one. Due out from EA this month on C64, PC and Amiga, *Test Drive* lets you try out some of the world's flashest high-performance cars - Ferraris, Lamborghinis and Porsches all make appearances - over timed road courses. The title aims to give you the feel of the different cars' handling characteristics, but don't spend too long assessing high speed performance or the Highway Patrol will collar you!



(Amiga) Fancy a spin in this Porsche 911? 0-$100 speeding fine in under five seconds!



▲ (ST) Good looking screen, even if the ball is a little difficult to see against that background

The Hunt for Red October

Argus Press

The game of Tom Clancy's book - a kind of underwater *Firefox* - this one sets you the task of steering the Soviet submarine Red October to US waters so that its officers can defect. The sub's secret low-noise engines would make this a piece of cake, but the Soviet fleet have already been tipped off so time is short. Due out this month, the game'll be available for Amiga, ST and PC.

(ST) The Atlantic Ocean on the main screen, with sonar options on the right.

Tonic Tile

The Edge

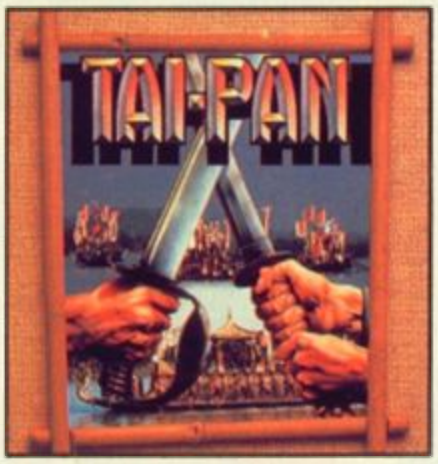
Just can't get enough of those *Breakout* clones? Played *Arkanoid* and *Impact* to death and still want more? Then take a look at this French bat'n'ball effort due out on the ST any day now. There'll be a full review in next month's issue, but this screenshot should give you the measure of the game graphically speaking.

ocean NEWS

CHRISTMAS SPECIAL

4 NEW RELEASES NOW FOR THE ATARI

LOOTING, GAMBLING AND SMUGGLING



REPORTS filtering through from Hong Kong suggest that the might of TAI-PAN is threatened as a pretender to his title is now becoming stronger every day after a speight of pirate attacks on innocent merchant ships and an uncanny run of good fortune in the gambling dens. Although rumours now suggest that his own empire may well be in jeapardy as mutiny strikes throughout his fleet.

COLOUR VANISHES

THE evil Zark strikes again to leave our world void of all its glorious colour.

Our only hope now is for the magical powers of Wiz and his fantastic feline friend, Catelite to perform their wonderous deeds – indeed, Zzap has already been quoted as stating "the finest release this year".

I USED TO BE A FLY IN THE OINTMENT

TRUE story by intelligent man.

A new experience, just released by Denton Designs, takes 'growing-up' to further dimensions. Have you ever wondered how you got here, which track you took,where you're going? Well Eco is the game for you. The graphics and animation are a sensation and the game-play is just out of this world – a game for life!

MAVERICK SKIES OUT

TOP Gun has gone through the roof! "Flying has never been so easy – the hard part is winning!" says Top Gun. On his latest assignment he just couldn't be stopped – flying supersonic and producing aerial manoeuvres that would fool a turbo-charged horse fly he later quipped – "It's simple, just enter the danger zone!"

ALL GAMES ONLY £12.95 FROM YOUR LOCAL SOFTWARE DEALER

Ocean Software · 6 Central Street · Manchester M2 5NS · Tel: 061-832 6633 · Telex: 66 99 77

You're cool, the engine's hot, the girl's gorgeous,
a tank full of gas and an open road.... the rest is up to you..!

Screenshot from Amstrad version.

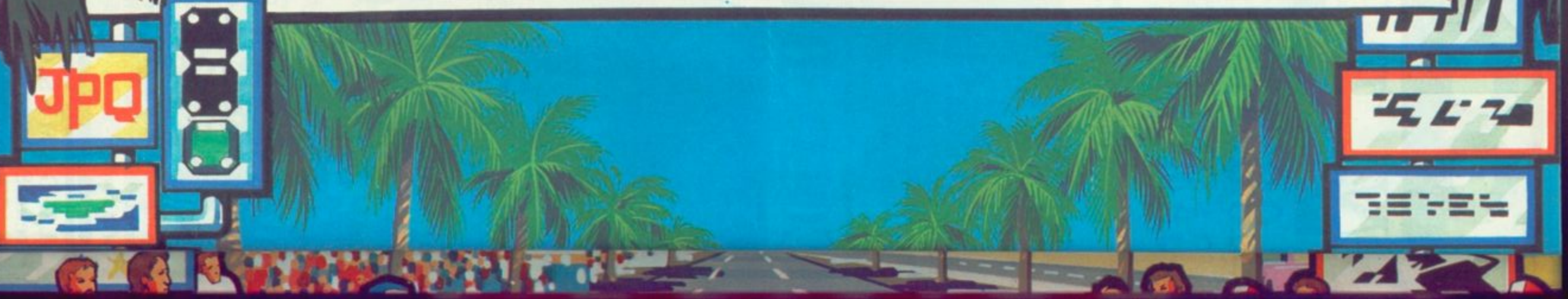
Out Run™

Screenshot from CBM 64/128 version.

Screenshot from Spectrum version.

START

Screenshot from Atari ST version.



The ultimate experience in motor sports simulation, the absolute challenge to nerve and reflexes. Feel the wind in your hair and the pull of the G-force as you power your way along the highways and byeways, a girl by your side, and open country before you. Experience the exhilaration and excitement of driving a high performance sports car in this teasing time trial where your co-ordination and nerve will be tested to unbelievable limits. Out Run the coin op starred as an arcade sensation. Out Run the computer simulation mirrors this exciting all action spectacle.

CBM 64/128
CASSETTE £9.99 DISK £11.99

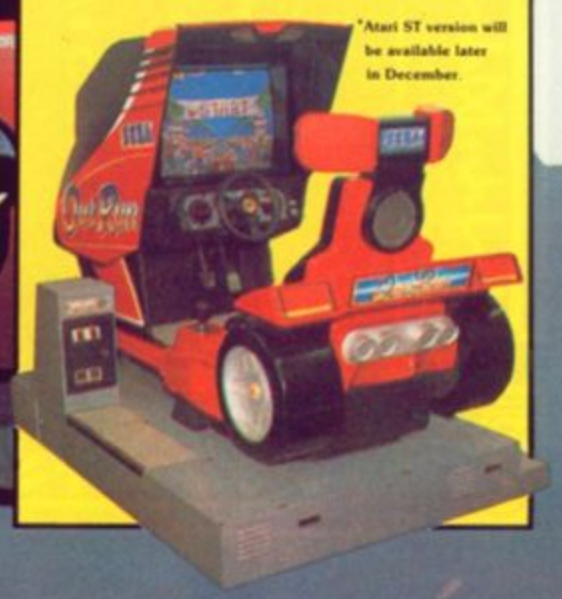
SPECTRUM
CASSETTE £8.99

AMSTRAD
CASSETTE £9.99 DISK £14.99

ATARI ST
DISK £19.99

INCLUDES ORIGINAL 'Sound Track' FROM COIN OP VERSION

The machine becomes a home computer reality on December 10th.*



*Atari ST version will be available later in December.

SEGA®

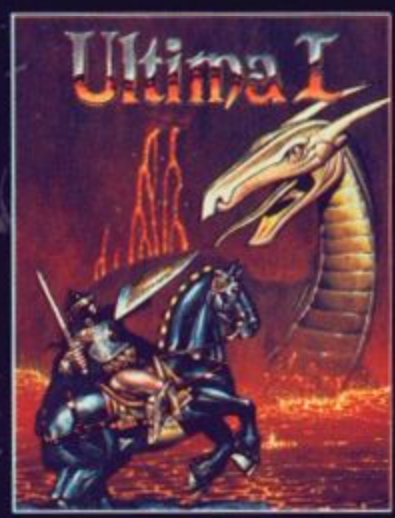
U.S. Gold Ltd., Units 2/3 Holford Way, Holford, Birmingham B6 7AX. Tel: 021 356 3388.

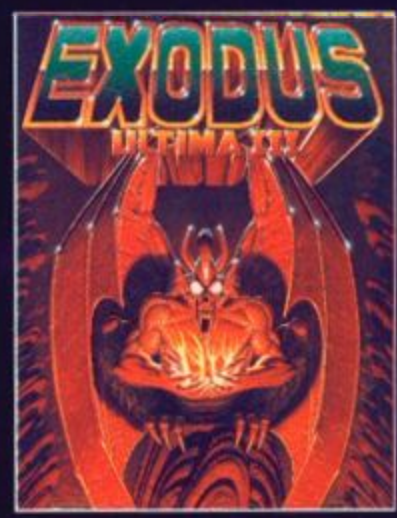
U.S. GOLD At American Software

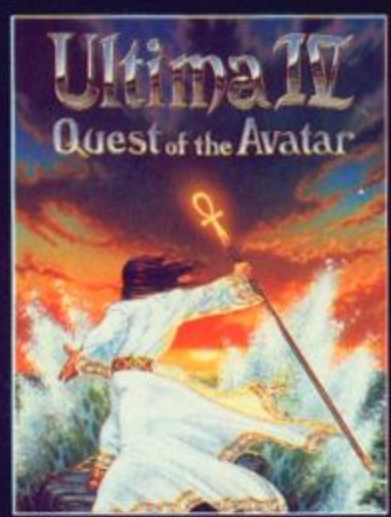
ORIGIN SYSTEMS INC.

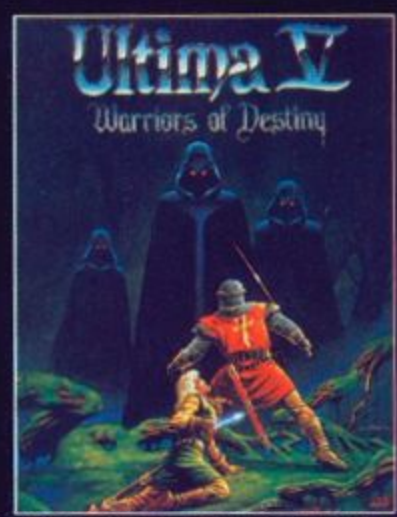
THE START OF SOMETHING NEW

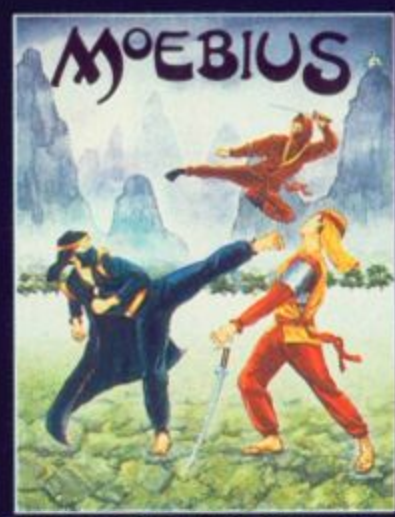
ULTIMA I: CBM 64/128 £19.95; IBM, APPLE £24.95. ULTIMA III: CBM 64/128, ATARI XE/XL £19.95; MAC, IBM, APPLE, ATARI ST, AMIGA £24.95. ULTIMA IV: CBM 64/128, ATARI XE/XL £19.95; IBM, APPLE, ATARI ST, AMIGA £24.95. ULTIMA V CBM 64/128 £19.95; APPLE £24.95.



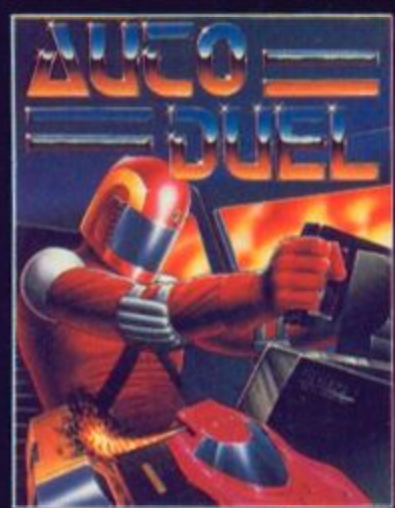


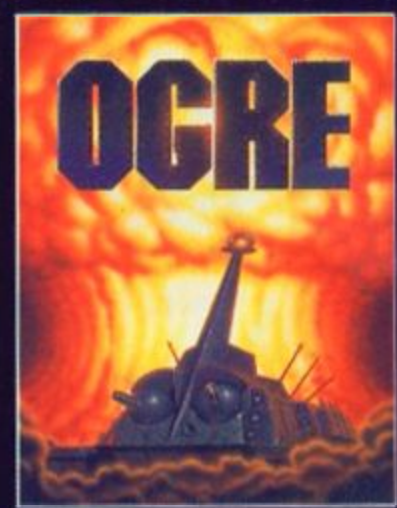






OGRE IS AVAILABLE FOR: COMMODORE 64/128, ATARI XE/XL DISK £19.95, IBM, APPLE, ATARI ST, AMIGA





AND MAC DISK £24.95.

AUTODUEL IS AVAILABLE FOR COMMODORE 64/128 ATARI XE/XL DISK £19.95, APPLE, ATARI ST DISK £24.95

MicroProse Ltd., 2 Market Place, Tetbury, Gloucestershire GL8 8DA. UK. Tel: (0666) 54326. Tlx: 43422 MPS/UKG.

ACE LETTERS

Some spicy stuff in the mail-bag this month: boasting software pirates, accusations of anti-Amiga bias, accusations of anti-ST bias (can we be biased against *both*?), and letters from our oldest (71 years old) and youngest (5 years old) readers. Keep sending the goods to ACE LETTERS, 4 QUEEN STREET, BATH BA1 1EJ

Pin up

I am a loyal reader of your sister magazine, Amstrad Action, and on a recent trip to the local newsagent I spotted a glossy new mag called ACE with a special on solid 3-D games (my favourite).

Flicking through the letters section I read the first letter, and thought 'Ah, so that's where Connor sneaked off to, nothing to do with the Foreign Legion after all.

I have a suggestion: my bedroom wall is plastered with artwork and posters from various computer magazines (not that I read them) and I know that a lot of my friends' walls are too.

Why don't you publish a photo/poster/pin-up of the ACE production team? We've never seen them, or are you too ashamed of your handiwork?

What does Carrie-Anne look like?

Dominic Lacey
Great Eversden

The ACE production team are a shy, retiring bunch. They work for the quiet satisfaction of doing a good job, rather than fame and publicity. As for Carrie-Anne (our subscriptions supremo) she's a creature of rare beauty. Unfortunately, she too is a timid type and does not wish her photo to be printed.

Commodore 128

Since you were unable to help R Johal in his search for software for his new Commodore 128 and 1571 disk drive (November Letters), as one of the first C128D (the all-in-one version) owners and an ICPUG member, I thought I might enlighten you both.

Gameswise, there is very little specifically for the C128. I know of enhanced versions of *The Last V8* (Mastertronic) – disk only at £4.99, and *Rocky Horror Show* (CRL) – cassette at £9.99 (maybe disk as well) and it is of course, the only 8-bit machine running the full range of Infocom Interactive Fiction – mostly in C64-Mode but the 'plus' titles (*Mind Forever Voyaging, Trinity* and *Bureauocracy*) can only run in 128 mode and only on 80-column monitor.

There is a far larger selection of more serious software (word processors, databases, compilers, programming languages, etc) available in 128-mode versions, such as *Superscript* and *Superbase* (which can load together on a 128), *Vigawritre, Petspeed* and *Oxford Pascal*, all of which can regularly be found advertised by both publishers and Commodore specialist retailers.

In addition, any CPM+ software whose publisher can be persuaded to supply it on 51/4" disk in Commodore GCR or IBM, Kaypro, Osborne or Epson MFM formats can be read by the 1571 and run on the C128 – I understand that at least one ICPUG member has been able to obtain Locomotive Basic as used on the Amstrads in this way for about £50, and it should be possible to obtain other programs also.

If Mr Johal is musically inclined, Compute's *Music System* for the Commodore 128/64 (Compute! Books), an American book/disk package similar to Rainbird's *Advanced Music System* with 128 and 64 versions on opposite sides of the disk.

Finally, if he joins the Independent Commodore Products User's Group (ICPUG) cooperative for £10 a year (plus £1 on joining for a share), he will have access to their free libraries of public domain software for C64 , C128 and CPM+, amongst others, covering both leisure and serious programs in all 3 modes, just by sending a blank disk or two plus return postge and packing to the appropriate librarian, and will receive 6 copies a year of their excellent magazine as well. Contact the Membership Secretary, Jack Cohon, at 30, Brancaster Road, Newbury Park, ILFORD, Essex 1G2 7EP, or ring, 01-597 1229 (days), 01-346-0050 (evenings)

Alan Wiggins
Oxford

That's a whole lot of useful information for C128 owners; I'm sure they'll be most grateful.

In a cleft stick

I am going to get a new computer, a BBC or a ST. I'm thinking of getting a BBC as it's the same as the school's got and I am taking GSCE Computer Studies. I like the ST as it's got a huge memory and built-in disk drive. Can you please give me some advice?

P Bourn
Hurstpierpoint

Tricky one. A BBC Master is likely to be more expensive than an ST, with a lower spec. The BBC has loads of software available, but the ST is getting more interest at the moment and is likely to get more in the future. But there's that GCSE to consider; I think you need to ask yourself just how useful it would be to have the same computer at home as at school – don't most people taking computer studies do quite nicely without having a computer at home as well? Not many people buy a microwave just because they're studying cookery.

Where's Ultima?

Compared to the dull drivel of so-called rival magazines your mag is brilliant! I am amazed at your fantastic offers for the Atari ST – saving £12.44 for *Gauntlet*! But, you seem to have made an error in the Atari ST versions of *Arkanoid*. It costs £14.95 in the shops, not £19.95.

When I saw your COLOUR reviews and your ingenious PIC, I was simply astounded. Your reviewing team have managed to do really in-depth reviews of games. I loved the huge 2-page review of *Skulldiggery* with a hint section! Brilliant! I immediately went out and bought it and I fully agreed with the 919 rating you gave it.

Keep up the good work and please continue to support the ST. Can you tell me when *Ultima IV* will be released for the ST. I've been waiting for it for months.

Gavin Lim
Chislehurst

We've already seen an IBM version of Ultima IV, so we reckon the ST version shouldn't be too far away; rest assured that we'll review it as soon as we can.

Sega is as Sega does

My beloved CPC 464 is keeping the garbage from getting lonely in the rubbish bin. Why? Because I have found a new love. Not another 8-bit. Not another 16-bit! Not even a computer! No, none of these. I've found the Sega Master System. I am totally obsessed by it. And if I don't see some real 'serious' reviewing of forthcoming Sega games I might have to get nasty, see. On a lighter note, I shall provide one question and one answer;

Not **Carrie-Anne**

Question – Is there a catalogue I can purchase reviewing Sega games?

Answer – Turn on your Sega Console without cartridge or card in the machine and hold buttons one and two and the direction controller down. Something will happen?

Kurt Sega really is my name!

Kurt Sega
London

With a name like that I suppose you were destined to fall for the Sega. We all wish you both the greatest happiness for the future. If you write to Mastertronic they should be able to send you a catalogue of Sega products.

XOR offer

Could you please tell me about your special offer on *XOR*. Does this include the "Icon Designer" and "XOR Designer" which I have read about in an advert for the game. If not how much would it cost to buy all the above from you? Would there be anything off the price of the "ICON" and "XOR" designers if they are a seperate package from the actual game which is exactly the type of game I've been looking for, and your review in issue one made me decide to purchase, and your discounts hopefully will persuade me to buy many games from you in the near future. If you could please answer my questions about "XOR" etc. Then I would be most grateful.

Mr D Kyle
Watford

The XOR Designer is a separate product, selling at £14.95 – but on the BBC only. It's not available through ACE.

Help!

Help! I bought a Spectrum +2 about 8 months ago and ever since then Ocean, Imagine, U.S. Gold games will not load except the odd one. Why is this? And is there anything I can do besides buying a new computer?

Darren Moore
Wigan

We haven't had any problems here with our +2 but we only got ours in July. There were some problems with older games, due to the slight differences between the old 48K Basic and the +2's Basic. We suggest you try all the normal adjustments, such as checking the azimuth settings, and also – if you can – try out the games on another +2. If there seems to be something wrong with the software rather than your computer, then get in touch with the supplier of the game and see if they can help or if they will exchange the games.

Who does he think he is?

I have several points to make so I have numbered them:

1) Who does R R Moranzani think he is? I refer to his letter in issue 2 of ACE. There is nothing wrong with the cover and it is much easier to see what great articles are inside than a piece of artwork for one game. Mr Moranzani also says that you need more colour inside ACE.

2) ACE has more colour reviews, screen shots and articles than most

Never heard such rubbish

I am not sure whether there's any point in my writing this letter about an article written in your third edition of ACE, as the article, about Amigas and Atari STs, was clearly written in a very deliberate and subtle manner.

My observation is that all the good points of the Amiga were highlighted on the first colour pages whereas the good points of the Atari ST were left until the bottom corner of the following black and white pages, which is obviously not so likely to be read by many.

As for your feeble explanation about the Amiga's lack of software, again on the first page, I have never heard such rubbish in all my life. In America, the Amiga has had higher sales from the very start, mostly A1000 and A2000 models, and in that country it is regarded as a games machine. The Atari ST has never held such pretentions; it has been aimed at the games market from the start and even now Commodore don't seem bothered. I don't see why your magazine should do their job for them.

Your comparison with the C64 software explosion simply does not hold water, as that computer was a games machine out and out. As for Germany and Scandinavia, their effect on software can be no more than minimal. I suspect you only threw those two in, in an effort to con us into believing that somehow this country is the odd man out rather that the only country with more sense than money.

As far as value for money is concerned, the Atari ST wins hands down. When you consider it costs less than £50 more than a C64 and disk drive, the value is simply amazing. When you ask the vital question as to how much extra one should pay for the extra hardware contained in the Amiga, I would suggest the answer is not £200, as at present. A further £50 or even £100 might be acceptable, but again, when you consider the serious lack of software, what's the point of the argument at all.

I have enjoyed the first two editions of your magazine, but not so much the third. Atari deserve success with the ST machine and if you continue to run it down, I and I suspect many others will not buy any future issues. Be warned!!

R J Lattimore
Havant

Of course the article was written in a deliberate and subtle manner; we wouldn't want to have written something that was slapdash and moronic, would we? As for accusations that we're anti-ST, I think you're wide of the mark; both Amiga and ST were featured on the colour pages opening our investigation; we didn't make any attempt todisguise the price difference between the machines; we stated clearly, but without any favouritism, that the Amiga has a superior technical spec; we merely presented the issues, and left the readers to make their minds up.

ST bias?

I think that your mag is great, but – and a big 'but' it is too – why are you doing most of the 16-bit work on the ATARI ST? I know it is a great machine, but come on, it's not the only one on the market! I own an AMIGA 500, and a mean machine it is too. I think that it was well worth the extra cash and that it deserves more credit than it gets, what with its 4096 colours and the excellent sound it can produce. I can guarantee the quality of the games it has to offer. The price for the ST is very good indeed and is well worth the money. But, if you want to get something really special get an AMIGA. I can tell you it is well-worth the money! Not trying to slag off any computers, but I think the AMIGA just has the edge on the ST.

Steven Wright
Brackley

We review as much Amiga games software as we can get our hands on, and the Amiga features nearly every month in the Graphics section. It doesn't feature so much in Music, largely because there's very little around in comparison to the ST.

Anti-Amiga mag?

In your first issue you supply a free cassette for Spectrum and C64 owners, but if you own an Amiga you get a piddly little £8 off some old games not even worth your discount prices. If Speccy and CBM owners think the free game is rubbish they can still use the tape as a blank. Me, I have to fork out £17.00 for a rubbish game/blank disk.

Also Amiga reviews are thin on the ground. Your graphics review said that the HAM mode of the Amiga is 'rather impractical' with 'very nasty restrictions'. I suggest your reviewer has a look at *DigiPaint*.

I look forward to Issue 3 with free software/blank disk for the Amiga (the ST and the Amstrad are also getting a raw deal).

G. Pracy
Attleborough, Norfolk

We are not 'anti' any computers. I reckon the offers to Amiga owners (and others) were pretty attrative. We review as much new Amiga software as we can get our hands on. We could possibly give away Amiga games on the cover – but would you be happy paying £4.00 for the magazine? I trust you find the gift on this Christmas issue compatible with your machine.

other computer magazines available. Also comments like "what wuz dat ed?" are not in the least bit funny and only make the magazine look immature and stupid. Plus the fact that ACE will not get extra readers by pinching ideas from other magazines.

The only thing I can agree with R R Moranzani over is the rating system which is a very interesting idea, especially PIC.

3) Do you know if there will be the Commodore Show in Manchester and if so when? Last year's show was a bit of a disappointment as none of the software houses support the north.

4) Thank to Pat for a great *G.A.C.* column. Being a Commodore *G.A.C.* owner I find it very interesting.

5) The competitions are great and I think that the prizes are very good and I hope to see more of them.

6) Finally, a word about the reviews. They are very informative and I especially like how you put labels on the screen shots, sometimes you cannot always tell the goodies from the baddies (to put it bluntly).

Thanks for a refreshing change to the normal computer magazines which seem to spend most of the pages slagging each other off.

Mitch Pomfret
Bramhall

Poor old Moranzani's taken a bit of a beating on these pages lately; let's make this the last letter taking him to task. At them moment we don't know of any Commodore Show planned for Manchester.

Happy Amstradian

I am writing as a delighted Amstrad owning reader, having taken full advantage of the first two issues' special offers and saving over £15 on two excellent new disk games. Those savings would have been much better to me than one (old) free game and a demo that would hardly last five minutes.

The magazine is superb; far more mature, more stylish, more colourful and with better features, reviews, and special offers than any of the rest, Issue 3 being the best yet. As soon as I can afford it, I will certainly subscribe and save even more money.

Tim Hix
Tavistock

It's nice to ge a letter from an Amstrad owner who's realised just how marvellous our special offers are – and just how marvellous the magazine is.

Gamesy-wamesy plea

I own a BBC Micro B and was doing quite well for Software (considering I own a BBC) until all of a bloomin' sudden all those lovely games that had been converted from machines like the Spectrum and Commodore were just wiped off the shelves to make more room for the more popular micros. So before I go and spend all my hard-earned pennies on a C64, could you tell me whether all those nice, kind, considerate personages are going to make a gamesy-wamesy or three for my puny Beeb.

Paul McKay
North Cheam

Superior and Audiogenic still seem to be committed to BBC 'gamesy-wamesys' (as you revoltingly put it). But we can't think of many other people producing the stuff.

Not running the *Gauntlet*

I own a Commodore 64, complete with disk drive, and printer. Around January this year, I purchased *Gauntlet* on disk for the aforementioned 64. During play, the game repeatedly crashed at random points, making it totally unplayable. I returned the disk to the shop I bought it from and was given a replacement. This replacement copy did exactly the same thing as the first. Rather than return the game yet again, I wrote to U.S Gold and to this day I haven't received a reply.

Recently, a friend gave me a copy of the game which worked perfectly on his machine, yet crashed just like the rest, on my machine. I sent this copy to someone else, who said it worked fine for him, which leads me to the point of this letter.

My 64 is quite old, indeed it was purchased shortly after Commodore first released the machine, and this I asume means that there must be some difference between it and later versions which hitherto have not become apparent.

All other software I have works perfectly , but I wonder if the situation might occur with future releases, and if there are any other ancient Commodore owners who have had any similar problems.

Being a student, I can ill afford to spend lots of money on software, particularly if I have no idea if it's going to work on my machine, something which I am now going to have to consider.

I will be writing to U.S. Gold again, but would ask you to print this letter and do you think there is any chance of getting some recompense for spending nearly £15 on a game that doesn't work on my machine?

Howard Crowe
Harpenden

We don't know of any specific hardware changes Commodore have made that would result in your disk not loading – but that isn't to say that there haven't been changes. We assume that you've taken every precaution you can, such as unplugging all unnecessary peripherals. US Gold themselves should be able to supply some suggestions, if not explanations, and we reckon that in the last resort they ought to refund your money or offer you an alternative game

Is this a record?

I got 137,470 points on your *Bubble-Bobble* demo tape. Is this a record for my age? It was on a Spectrum +2.

William Barford, age 5 years.
Northampton
and his mum who wrote the letter and saw the score

Yes, it probably is a record. Any under-5s out there who'd care to challenge?

Wise guy

In the "Winner or Wimp" feature *Skulldiggery* problem (page 42) there is a solution, surely? You may get killed but if you get the top diamond first then dash for the bottom one, I think you will get it just before you get crushed. But the problem was just about getting the diamonds, wasn't it? Do I get a special prize for being clever (*Skulldiggery* for my ST?). No, I didn't think so.

David Hood
Glasgow

Any more letters like this, chummy and you'll be in real trouble. We've got your address on file.

Paperboy problem

Thanks for a brilliant and exciting magazine. But there is one question I want to ask you. In Issue 2 – Tricks 'n' Tactics section I typed in the *Paperboy* program. I then checked it and then saved it, I then ran it as you said and loaded the

game *Paperboy* but it did not give me unlimited lives. I checked and checked it but it still did not work, could you tell me why? Oh, and by the way, I've got a Commodore 64.

Lee Howard
Wheathampstead

The poke worked OK on our 64 in the office; we can only imagine that either there's something wrong with your machine or that there's something different about your copy of the program that means the poke doesn't work

Mail order misery

I was wondering if you could give me some advice on my rights as a consumer. As a result of your first issue I applied to a software house for some goods. Since then I have written to them four times and only received two out of four of the items which I applied for.

Both of the other two items have been readily available since I applied, and the software house have not written back.

Stephen Strain
Shrivenham, Swindon

First of all, write to the company concerned and tell them you are going to take the matter further. If you still do not receive satisfaction, get in touch with your local authority's Trading Standards Officer, or

Cad of the month

I don't believe the price of ST software – £25 a piece! That's four for £100! And I bought my car for that price. PLUS, I get a lot more mileage out of my trusty Triumph than *Starglider, Goldrunner* or even *Supercycle*.

Luckily I found a person who gives me a copy of any ST title for the price of a blank disk.

Thank God for software piracy!

A. 'Doley'
West Midlands

You seem rather proud of your piratical exploits, but have you stopped to consider that the more people who behave as you do the longer ST software prices will remain as high as they are and the longer software houses will have an argument for keeping them high? Piracy on this scale is tantamount to stealing not just from the company, but from other, honest consumers. You should be ashamed of yourself.

Commercial piracy?

I wish to tell a tale of naughty deed that I happened to witness only two days ago.

I work in ***** city centre and during my lunch breaks and I like to go out and look around the shops. On this day in question I decided to go into ***** to see what demos they were running on their A500s and A2000s, and on their Archimedes. On the Archimedes a demo was running showing its version of the Amiga's Hold and Modify. The Amiga 2000 was running a short demo for thicko businessmen explaining the advantages of multi-tasking.

The Amiga 500 on the other hand was being used by a member of staff for rather personal purposes. He was using an item of software called *Marauder* to – apparently — copy a disk. I have no idea which item of software he was copying, and I have no idea of whether it was for his personal use or for use in the shop, but it smacks of pure hypocrisy when the software industry and the computer magazines attack home and business users on the matter of piracy, while people in a position of trust and responsibility treat the products that they sell as theirs for the taking.

I am not moralising on whether or not piracy is acceptable as I transfer games from tape to disk on my C64 and I also receive copies from friends, but I would like to draw attention to an area which is avoided as mcuh as possible by many magazines. So often home users have been attacked by the editorial staff of certain magazines that one can get the impression that the sun must shine through their anal orifices. I would just love to see some of them in the sort of pickle that some of the American TV evangelists are finding themselves in. I hope you don't take the editorial standpoint of being morally superior as it would ruin a lot of good debates in your letters pages.

To round off I would like you to answer truthfully the following questions:

1. Have you ever copied an item of software for any reason?
2. Do you know anyone who has copied software for any reason?
3. If you are impressed by an item of software you receive for review and at the end of the day two members of staff desire to take it home to play, do you copy it for the second person?
4. What do you believe is responsible for software piracy?
5. Do you believe there is a remedy to reduce or stop piracy?

I hope you answer this letter in a fairly sensible manner. Please don't write half a page of bull slagging me off.

Stephen Sheridan
Kings Norton

Answers:
1. Yes
2. Yes
3. No
4. A combination of poverty, high prices and dishonesty
5. More money for everyone, lower prices, more honesty

ask the local Citizens Advice Bureau to help.

In the last resort, of course, you may have to go to the police – but usually these things are settled before that stage.

Adults only?

I've enclosed an Amiga disk of some of unusual digitised material – put that in your magazine if you dare....or are you just aiming at kids? I have plenty more material, a good understanding of the art side of the Amiga and all the art packages available if you need reviewers.

Mark Hodsman
Gainsborough

No, we're not 'just aiming at kids' – that's why we're not printing your photos.

Controversy of last month

Sorry about my letter you printed! It was a little unclear. I believe strongly against the abuse of women! But enough of that! I thought I might take up your pointt of excessive violence in the computer gaming world. I think that Ocean, U.S Gold etc have simply found the soft spot in a gamer's heart. However, many of us claim that we are pacifists; the fact is we all like nothing better than a good episode of the A-Team or a really gory Stephen King masterpiece.

As for computer games, *Rygar* is a fine example of a promotion ad for a game. In the arcade, I bet you don't think of it as carving a wedge in some poor soul's chest. No! It is merely a bashing of meanies to gain points. Similarly, I don't think that violence is really taken that seriously in computer entertainment. Take *Commando, Green Beret, Who Dares Wins* and the huge amount of clones all based around the unnerving butchery of a Vietnam army, nobody cares as long as the game plays well. There is a little devilish part of us that gets released whilst playing though, I can remember me smirking with glee when I punched a club wielder in *Renegade* off the end of the subway! Ha!

Demetri Panayi
Harrow

Failed expectations

I was delighted when your magazine appeared on the news stands but, alas, I have again been lulled in to subscribing to something which does not come up to my expectations.

Believing that with the staff who produced Personal Computer Games this was a rebirth to cover the disappearance of Computer Gamer, which was my favourite mag, I readily sent off my sub.

As a pensioner of 71 years I used to enjoy typing the listings in the now defunct publications. Not all of us are computer boffins and there was always a lot of pleasure in getting the listings correctly on to tape and watching the results, even though I admit that these were not up to the standards of commercially produced games.

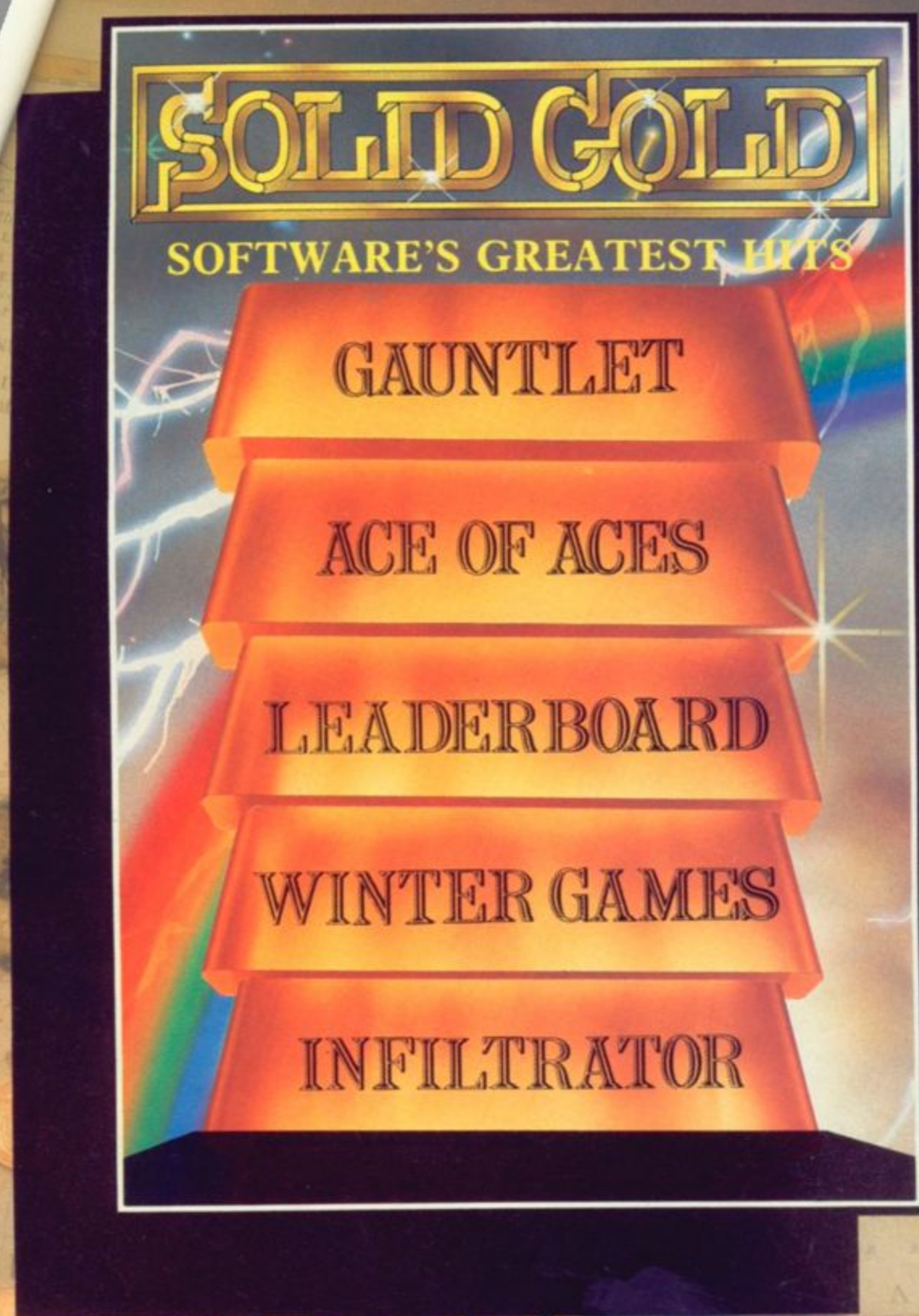
Unfortunately I see from your reply to John Hammond (Issue 2) and Don Griffin (Issue 3) that you hold the supercilious view of the expert that the interests of the novice are not worth catering for. Even an occasional listing would be welcome, but if this is not forthcoming I shall be glad when my sub expires and I shall no longer have to bother trying to find something in your mag which is of real interest to me.

C.Gannan
Redcar

I'm sorry that you don't like the magazine, but I'm unrepentant about our decision not to run listings; in this age of ever more sophisticated software it seems to use that there is just no point at all in spending hours typing in a Basic program – and even less point in devoting valuable space to them in the magazine. It's not as if we promised to print listings and then changed our minds; we said from the very beginning that we wouldn't have them, and that desision is not going to change. As for 'the supercilious view of the expert' etc., I think you're barking up the wrong tree; although some of the articles in ACE are written by boffinish people, we always bear in mind that our readers are a mixed bunch spanning a wide range of experience and knowledge.

Personal replies
Please don't send SAEs or ask for a personal reply to your letter; we just haven't got time to give individual replies. If it's at all possible we'll print letters and help you out on the page. More than that we can't promise to do.

You have found treasure beyond your wildest dreams



A classic compilation of software's greatest hits.
GAUNTLET ... this No.1 smash hit recreates all the excitement and gameplay of the arcade sensation.
ACE OF ACES ... a magnificent and enthralling blend of flight simulation and arcade "shoot 'em up" action.
LEADERBOARD ... *"the sports simulation of the year, if not the decade, that makes all other Golf simulations look clumsy"* Zzap.
WINTER GAMES ... an outstanding location for a competition, a superb combination of testing events, an unrivalled classic No.1.
INFILTRATOR ... action, strategy and simulation in one spy action thriller, *"Like being in an action film"* Sinclair User.

U.S. GOLD

U.S. Gold Ltd.,
Units 2/3 Holford Way,
Holford,
Birmingham B6 7AX
Tel: 021 356 3388

CBM 64/128 £9.99 TAPE £14.99 DISK

SPECTRUM £9.99 TAPE

SPECTRUM +3 £14.99 DISK

AMSTRAD £9.99 TAPE £19.99 DISK

RAMPAGE
TM
'...the game that's going to become the biggest cult game of the YEAR.
It's going to be a monster...' Arcade Action
COMPUTER AND VIDEO GAMES

ACTIVISION®

Mail Order: Activision (UK) Ltd, Units 3 & 4 Lloyds Close, Finedon Road Industrial Estate, Wellingborough, Northampton NN8 4SR Tel: (0933) 76768.
TM & © 1986 Bally Midway MFG Co. All rights reserved. Activision Inc. Authorised User.

Commodore 64/128 Cassette (£9.99) and Disk (£12.99) ZX Spectrum 48k/128k/+ (£9.99). Amstrad CPC Cassette (£9.99) and Disk (£14.99). Atari ST (£14.99). Atari XE/XL cassette (£9.99) and Disk (£14.99).

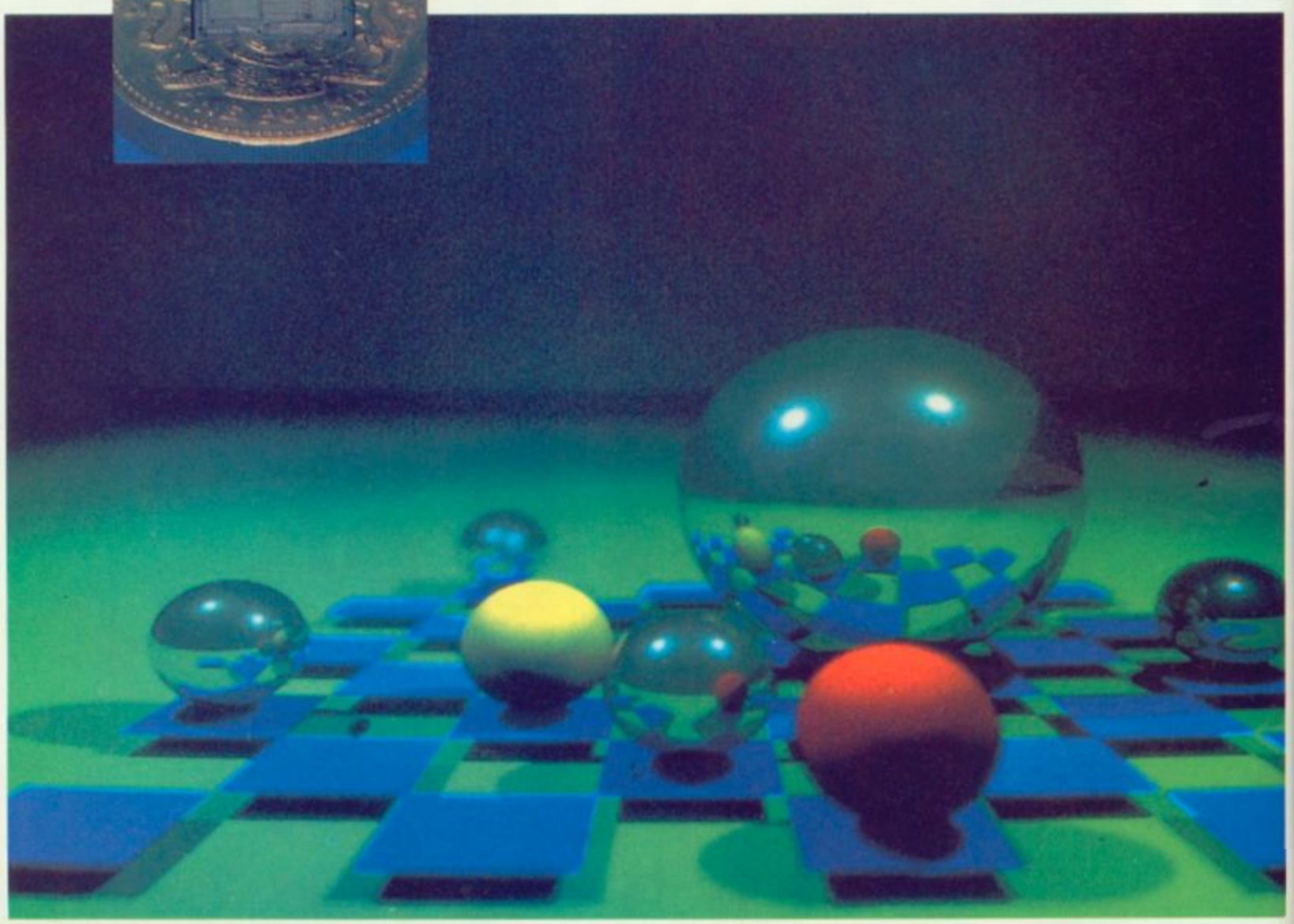
Officially licenced from one of the most original and popular arcade games ever created, Rampage is the game where the nice guys don't get a look in. Grab your way through Chicago, punch up New York and jump on San Francisco. This is your chance to become one of three indescribably monsterous characters on a rampage through 85 cities in an enduring 768 different days of destruction.

GAME OF THE FUTURE

It's Xmas 1992, and you're loading up the brand new game some kind soul's just given you. But what kind of game will it be? What sort of machine will you be loading it on? Andy Wilton investigates.

Vision of the future

Check out the stunning graphics on this Transputer ray-tracing demo. Ray tracing's need for thousands of separate calculations suits the divide-and-conquer approach of Inmos' parallel processing chip. How long before we see this kind of thing in real time? (Inset) The T414, the chip that makes it all possible, with a pound coin for scale.



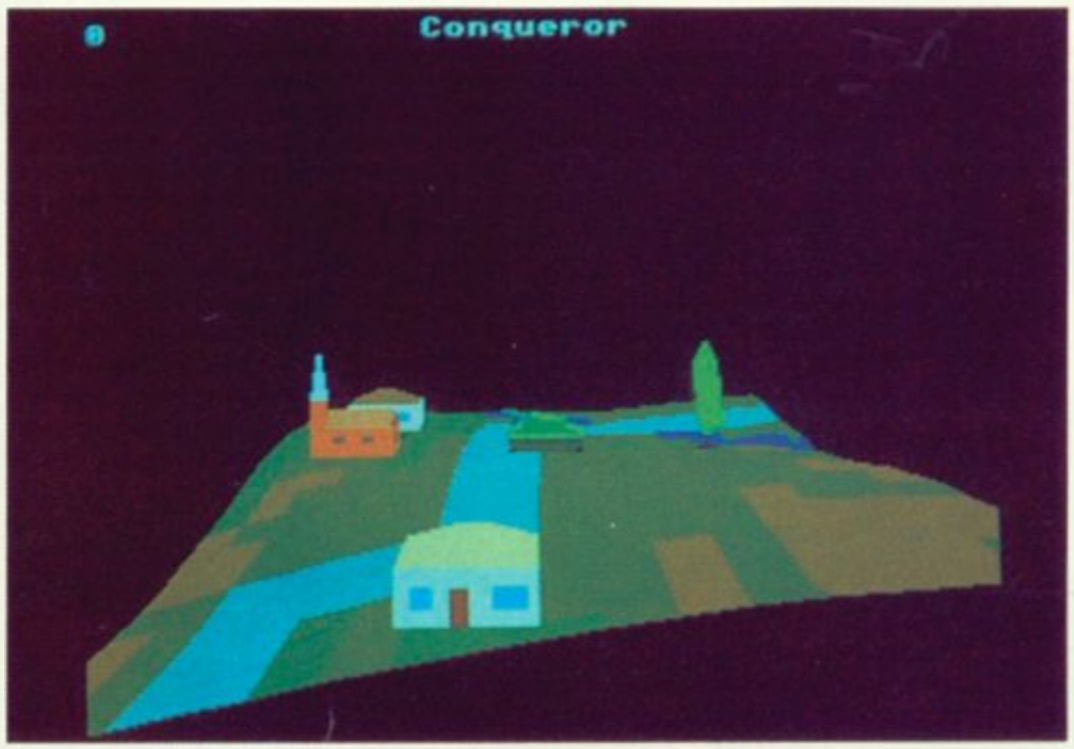
A new generation of micros is already on the horizon: power micros, fast enough to run whole new types of game. Micros using the technology on these pages are still a long way away from the high street shops, but in five years' time you could be playing games on them. They'll be able to spread the work of running a game between many separate processors; they'll be able to display half a million of colours on screen at once; they'll be able to read vast games from compact discs. But will programmers be making use of all that power? Will noisy phone lines thwart dial-in arcade games? And could this mean the end of sprites as we know them?

Anything could happen...

...in the next five years. Five years ago the Spectrum was brand new, and showed every sign of wiping out the year-old Commodore VIC 20 – a rather lightweight precursor of the C64 with only 3K of memory as standard. At £125 for the 16K model and only £175 for one with a massive 48K the Spectrum was the ST of its age: it delivered more bangs per buck, and quite a lot more at that.

On the horizon at the time was the Acorn Electron, a cut-down BBC micro that promised to be graphically superior to the Spectrum. It was, as it turned out, but its high price, low power and late arrival were to prove its undoing.

The ballooning of memory sizes and the collapse in micro pricing broke games out of their coin-op cloned stagnation, making whole new game types possible. Software houses mushroomed, and the games scene we know today started to take shape.



8-bit machines need not apply

Jonathan Griffiths's innominate tank warfare game uses the 'patchwork' landscape routines of *Zarch* to bring you blitzkrieg on the Archimedes. The power required to handle the display in this case may even be beyond the capacity of the ST. A good example of how increased machine power can make new game-styles possible.

Parallel processing

Micro power is about processor speed and memory speed. There's a limit to the rate you can get a conventional one-processor micro to run at. Technical advances may have brought us newer, faster processors and memory chips but the boffins can't keep this up indefinitely. Beyond a certain point, the only way to get a computing job done faster – whether it's moving a sprite, filling a shape or creating a sound waveform – is to spread the effort between two or more processors.

This sharing of the workload is technically known as *parallel processing*, and it's already a well-established principle in the lofty realms of supercomputing. The multi-ton monsters of the world's research establishments can tackle vast number-crunching

The use and abuse of power

If the power of the ST's 68000 or the Amiga's blitter are revolutionising games this Xmas, we can expect even better things of home micros around (say) Xmas 1990. Already with games like *3D Galax* and *Carrier Command* the 68000 is producing unbelievable solid 3D graphics at high speed, and it's still early days yet. With the far greater power around the corner, what other game techniques might become viable?

Ray Tracing

At present confined to still pictures and short animated sequences on the ST and Amiga, this slow painstaking process involves following rays of light back from the objects in a scene to the imaginary source of light illuminating them. Ray-tracing a scene involves an enormous amount of work, and existing ray-traced animations are no more than 'slide shows' displaying previously calculated frames. The classic Amiga *Juggler* demo took over an hour per frame in calculation time, and even Tim Moore's high speed ST ray-tracing system took 12 minutes to produce the frame shown here.

Ray-tracing can produce frames of immense complexity and realism, depicting shadows, mirrored surfaces and transparent objects with breathtaking accuracy. Because the technique's so slow it'll be a long time before a home micro can use it at anything like arcade game speed, but compromise methods should be able to offer many of ray-tracing's advantages in the forseeable future. As Pete Cooke proved with his smash hit game *Tau Ceti*, clever lighting techniques can add a great deal to game realism without slowing things down too much.

Otherwise, the real thing could still prove practicable and space-saving for graphic adventures, as well as static-ish games in the *Sentinel* or *Driller* mould.

Fractals

They may seem like yesterday's hot piece of games technology, but with more powerful home micros on the way fractals could go far beyond anything that *Rescue on Fractalus* or *The Eidolon* had to offer. The power of these exotic mathematical oddities to give surfaces a natural, realistic texture has long attracted programmers to them but there's an enormous burden of number-crunching involved. As a result most existing home micros lack the power to handle fractals effectively at arcade speed, and since the Lucasfilm efforts there's been a conspicuous lack of interest in them for games purposes.

Fractals deserve a good deal more attention than this, now that high-power micros are on the way in. They can texture anything from snowflakes to mountains, offering fascinating possibilities for shoot-em-up landscapes and similar: imagine *Zarch* with realistic hills and crags!

ST ray-tracing demo by Tim Moore.

problems by putting thousands of processors to work on them simultaneously.

Even if you don't have £10 million for one of Seymour Cray's little beauties, you can still get on the bandwagon. For starters, the (comparatively) humble Amiga has a limited parallel processing capability: with 1 megabyte or more of memory, you can get its 68000 central processor doing one job while its blitter – effectively a graphics processor in its own right – gets on with another. By this time next year however, ST owners will be able to do a sight better than that.

ABAQ

Due for launch in the first half of 1988, the forthcoming **Atari/Perihelion ABAQ** workstation will offer major-league parallel processing power that plugs straight in the back of your ST. The project's based around the **T800 Transputer**, a chip that has (along with its little brother the T414) been quietly taking the computer world by storm over the last two years or so.

Like Acorn's ARM – the powerhouse of their Archimedes micro – the T800 is a British design, hailing from West country chip magnates Inmos. Also like the ARM, it's a 32-bit chip. Indeed, you could be forgiven for thinking that the idea of plugging a T800 into an ST is very like Acorn's plug-in second processors for the BBC micro, in a sense a very early example of parallel processing on a home micro: but there are some big differences.

For a start, the T800 add-on won't just get your ST thinking faster: it'll give you vastly better graphics from it's own onboard video chips, and manipulate these at incredible speeds. In truth it isn't really an add-on for the ST at all, but a high performance computer that relies on the ST only for keyboard input and disk storage.

The second big difference is down to the T800 itself. From the outset the Transputer family were designed as parallel processing chips, making them quite unlike anything else around. Each one of them is almost an entire computer on one chip, complete with 2K or 4K of RAM already built in. Linking them together is childsplay: Inmos have built a multi-player combat helicopter simulator that lets four or more armchair pilots fly

Speed vs. screen size

Machine power is on the increase the whole time, but so is screen size. 'Size' here means the amount of room the screen takes up in memory, and that's a very important factor in games performance.

Computer art packages and machine sales brochures describe the screen in terms of the resolution (320x200 or whatever) and the number of colours available simultaneously. Both of these have been rising continuously over the last five years, and the rises have pushed up the amount of screen memory required. For example, the Amstrad CPC needs 16K for a screen of 160 dots x 200 lines in 16 colours, while a 32-colour 320x200 Amiga screen takes up a hefty 40K of RAM.

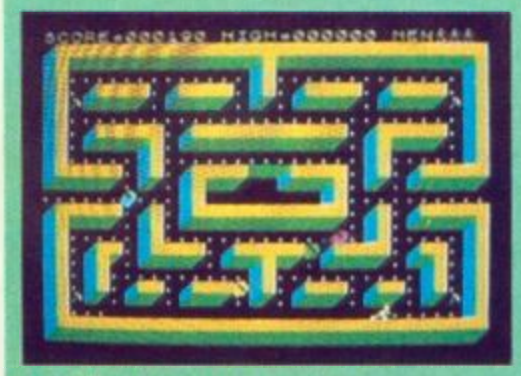
In broad terms the more memory a screen takes up, the more power you need to run the same game on it. That's why Amstrad games typically run slower than their Spectrum counterparts: the machines are just about equal on power, but the Amstrad's screen is at least twice as big. With ever larger game screens – the 256-colour 320x256 Archimedes effort used on *Zarch* takes up 80K, probably the biggest yet – micro power has to carry on rising just to keep games running at current speeds!

This vicious circle isn't nearly as bad as it sounds. Micro power is rising a good deal faster than screen size at the moment, with the Amiga and the Archie both capable of handling software sprites the size of the entire screen in typical games display modes. Quick game of *Space Harrer*, anyone?

Like the Transputer, Acorn's ARM chip is flying the flag for Britain, here in 256 colours.

Dynamic Universes

See how software for the machine of the moment five years ago (the Sinclair Spectrum) has matured in the quest for the dynamic universe - a real world encapsulated in your micro. And if this is what we can get out of an eight-bit machine, what will the next five years squeeze out of STs and Amigas?



1 What you see is...

...what you get in *Haunted Hedges*: The closest this early Spectrum game gets to realism is that 3D effect on the walls. Your 'dynamic universe' is a pitiful single screenful.

2 Going places...

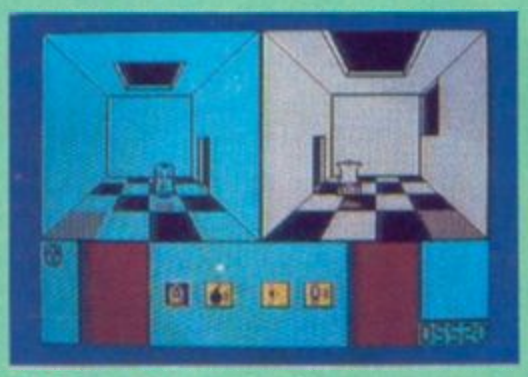
Android Two: Costa Panayi of Vortex was ahead of his time with this one. 3D landscaping has improved, and now you can scroll in all directions to explore the game world further.

3 The jig-saw approach

Atic Atac: Ultimate take the opposite approach - there's no scrolling here, but they've packed a whole mappable mansion into your micro.

4 Isometric exercises

Sweevo's World: Gargoyle enlarge on the 3D room-by-room style of *Atic Atac*'s successor, *Knight Lore*. The same bits-and-pieces approach as before, but it's looking much better.



5 New perspective

De-activators: Ariolasoft go for true 3D perspective here, with droids appearing larger as they get nearer the camera. It's still room-by-room, but we're almost there...

6 A world is born

Driller: The Freescape system from Incentive brings a planet to life. Whether they can squeeze any more blood out of the Spectrum stone is anybody's guess.

£5 OFF ALL TRADE PRICES

YOUR MICRO DESERVES THE BEST...

When your home or business micro costs several hundreds of pounds, it deserves the finest repair facilities in Europe (well, probably!). And the finest prices – £5 off trade rates for a limited period only. ★ How? At Verran we use our own range of advanced automatic test equipment (now sold worldwide), backed by stringent 2-8 hours soak-rack testing. That means speed, ultra-low prices and, most important, guaranteed reliability. For the first three months we'll repair any fault free. For the next three, at half these quoted prices. ★ It's the finest service available.

★ Currently we handle over 3500 products on average every day. Providing services for such leading companies as Amstrad plc, Commodore Business Machines, Sinclair Research, Rank Xerox, Dixons, Currys, Boots, W H Smiths, John Menzies and many more. ★ Join them and take up our special offer now.

Recommended and Approved by

AMSTRAD ACORN ATARI SINCLAIR COMMODORE

EUROPE'S LEADING COMPUTER REPAIR CENTRE

...AND UNBEATABLE DISCOUNTS ON ALL COMPONENTS!!!

★ **With over £500,000 worth of spares in stock, we can meet many of your specialised requirements. We've listed a few examples and for anything not displayed just call us and we'll quote immediately inclusive of first class post.**

SPECTRUM SPARES

Z80 CPU	2.50
ULA 6C001	7.00
Power Supply	6.50
ROM	7.00
4116 RAMS	.75
ZTX 650	.40
ZTX 213	.40

Keyboard Membrane

Spectrum	3.00
Spectrum Plus	8.00
QL	9.00
Metal Templates	3.00

COMMODORE SPARES

6510 Processor	12.00
6525 CIA	12.00
6581 Sid Chip	15.00
901225 Graphic ROM	10.00
901226 Basic ROM	10.00
901227 Kernal ROM	15.00
906114 House Keeper	10.00
6569 – VIC	18.00
4164 RAMS – Memory	1.00

Power Supplies

C64	19.50
C16	15.00

All the above prices include VAT but please enclose a further £1.50 post and packing on all component orders.

HOW TO CONTACT US

★ **For quotes on computers not listed or on any component, telephone 0276 66266. (Quoting ACE/018).**

★ **To send us your micro for repair, mail it securely packed, accompanied by cheque, postal order (made out to Verran Micro Maintenance Limited) or quote your Access or Barclaycard number. And to obtain your special discount quote ACE/018.**

Verran

Verran Micro-Maintenance Limited, Unit 2H & 2J, Albany Park, Frimley Road, Camberley, Surrey GU15 2PL. Telephone 0276 66266.

Merry Christmas from all of us at **Verran**

around the same solid 3D landscape, firing at each other if they wish, and uses 11 Transputers per player. It only took two man-weeks to program, presumably because there was no need to get clever with that much power available!

The biggest drawback of Transputer technology at the moment is the price. Where Acorn's add-ons have mostly been within reach of the home enthusiast, the Atari/Perihelion box plus software will probably be around the £3000 mark. Put that together with the price of an ST (and it may have to be a pricey Mega ST at that) and you've got a bill that makes the Archimedes look very cheap.

The Atari/Perihelion Transputer box will be an impressive beast. It'll have a 20MHz T800, a 20MHz 32-bit Blitter for graphics operations (should be around ten times the speed of the Amiga's) and – the real point of all this – its own picture output. Throw your old monitor in the bin folks, because this one will be able to turn out a 1024x768 screen in 256 colours, or a 512x480 one in around half a million of them.

The box is intended as a workstation so that kind of graphic output isn't actually way over the top. Whether a future T800 micro would have graphics on the same lines is anyone's guess, but the point is this: between them, the T800 and the Blitter can handle a screen that size. With 'titchy' screens like the ones an Amiga or Archie uses, the dynamic duo could surely perform staggering feats.

The question is, are Atari planning a Transputer-based home micro in the forseeable future? Opinions differ: many see ABAQ as the start of just such a project, with a finished machine coming out in around three years time. Sceptics like *Starglider* author Jez San point to the high price of the Transputers themselves- even after a recent price cut T414s still cost £180 each – and the fast RAM they need, but the optimists won't be discouraged. Transputer prices would tumble with the mass production an Atari machine would need, they argue, and chip prices generally are falling all the time.

In practice

It's no good having all that power to hand if games programmers aren't using it, of course. Amiga and ST programmers aren't pushing their machines at all, with many games still partially written in high-level languages such as C. This makes them considerably slower than they need to be – the sluggishness of so many ST and Amiga games is often attributed, rightly or wrongly, to a high C content – but it has its advantages as far as the programmer and the software house are concerned.

For programmers, languages like C can make life a good deal easier, and cut down writing time. For software houses it makes their games more portable, cutting down on the time needed to convert from one machine to another.

To an extent this is just a phase the 16-bit market's going through. Early Spectrum games often contained large chunks of Basic and '100% machine code' was a proud boast in adverts of the time, where nowadays it's taken for granted on all 8-bit machines. The 16-bit C-monsters can't match the speed of the machine code opposition so they're starting to die out, but such games may well find a safer niche on high-power micros.

The problem is mostly that, with the enormous increase in speed they offer, power micros will let a programmer get away with using C. As *Zarch* author David Braben pointed out, 'On the Archimedes you could even write a marketable game in Basic. It's going to take a lot longer before high-level languages are dropped on ARM or Transputer micros.'

Transputers present machine code programmers with additional obstacles. Using networks of Transputers can be very tough going indeed at such a low level. Inmos themselves strongly recommend the use of the parallel processing language Occam instead, and the signs are that most programmers will toe the line on that one. 'The chip's designed to be programmed in Occam,' Arcadia programmer Andy Walker said. 'It'd be worth the slight loss of speed to get proper parallel processing.'

Sprite send-off?

Not only will programming techniques have to be re-evaluated, so will the on-screen presentation of the games you play. With machine power and screen size on the way up conventional 'bit dump' (that is, sprite-based) games start to look less attractive than at present. If your machine can handle a sprite larger than the entire screen (see 'Power and Screen Size') a game's going to have to do just that to actually impress anyone. The bit-dump games of today just won't show off the power micros' capabilities. Furthermore, if you're writing a game for a micro with a 1Meg screen you'll have a tough time fitting your sprites and background onto a conventional disk. (A CD could manage it though – see separate box.)

On the other hand, the new chips will be able to handle the calculations and area-filling of realistic 3D games far better than current machines can. Higher resolution displays will also suit 3D games very nicely, with fewer jagged eges and better definition on small objects. Given the prestige attaching to realistic 3D – no vectors title has ever been launched as a budget game, for example – such techniques should also fetch games a better price. Will sprites rise to the challenge, or just fall by the wayside? 'I don't think sprite games will ever die out,' said ST programmer Tim Moore, 'but they'll certainly take a beating. 3D games are a lot harder to write though — there's a lot more to go wrong.'

The added power of 16-bit technology will not only bring us products with more punch, it will also change the nature of the games themselves. Certain types of game (strategy and war-gaming, for example) have never really caught on with the mass-market, simply because 8-bit machines didn't have the power to do justice to the computation involved. Suddenly whole new categories of game are getting ready to come out of the closet – take a look at Rainbird's Universal Military Simulator, reviewed in this issue – games that really do bring us one step closer to building a complete 'game-universe' inside a computer. Fasten your seat-belt and prepare for take-off...

CD capers

Two or three years ago, the future looked CD-shaped. Laserdisc coin-ops like *Mach III* and *Dragon's Lair* heralded a new era of TV-quality graphics you could interact with. Well, that's the way it looked, anyhow.

Compact discs are undoubtedly wonderful things and could have a lot to offer the gamesplayer of the future. Their enormous capacity for data – over 500Meg (that's 500,000K) on one disc – makes them naturals for home computer use. CDs would be great for distribution of bulky games be they graphic adventures, big-sprite classics or whatever.

As for *Dragon's Lair* -style interactive video, it's hard to see how this can ever match the level of player involvement most games players have come to expect. Several software houses have interactive video projects under development, but the gameplay problem isn't going away. 'Interactive video games like *Dragon's Lair* are something of a dead end — a cop-out,' opined David Braben (he of *Elite* and *Zarch* fame). 'They only have a simple tree structure which gives the player very little to do. The way to get TV quality graphics and gameplay together is by sheer processing power — but that's looking in the very long term.' (Cf. the White Wizard's views on multiple choice adventures in ACE 3.)

On-line low-down

Adventures down the phone line are nothing new, but how about online arcade games? You can already play things like *Flight Simulator II* or Doctor Soft's *Double Phantom* with a friend, your plane being visible on his micro and his on yours. If he's sitting in the same room as you it'll just take a connecting cable, but if he's on the other side of town (or the world!) then a modem each will have the two of you hooked up courtesy of the phone company. That's still some way short of the interaction you get in a decent multi-user (adventure) game, but there's no real reason for this gap. A system where half a dozen players from across the country could join in one game of an *Elite*- or *Gauntlet*-style game should be possible – provided, that is, there was enough money to make it worth the programmers' while – but there would be problems.

The bottleneck is the actual phone connection: with the poor quality of existing BT lines, it's a tough task cramming the information into them fast enough. To get a smooth game your micro has to tell the central system what you're doing, and find out what everyone else is up to, 25 or even 50 times a second. That's a tall order on today's phone network, though there's some promise that BT's new System X will make higher data speeds a sight more reliable.

Bath Computer Shack

***STOP PRESS* NEW MIDI DEMONSTRATION SUITE OPENING SOON.**

"You've probably heard about us!"

We supply and support Universities, Schools, Colleges, Government Departments, Businesses and hundreds of customers both in the UK and Europe.

OVER 600 SQUARE FEET DEVOTED TO THE ST IN OUR BATH SHOWROOM

- ★ **ST HARDWARE** – We carry the full range from mice to Megas.
- ★ **ST SOFTWARE** – Hundreds of titles always in stock.
- ★ **ST USER GROUPS** – We will be delighted to make you special offers
- ★ **ST DEALS** – Special value packs, finance and part exchange.

NEW PRODUCTS – Available direct from us or dealers nationwide

MONITOR MASTER

This is the monitor switch that everyone has been waiting for, allows you to change from colour to mono at the press of a button. Direct connection to your stereo and TV (for ST's with a built in TV modulator) as well. Note that some cheaper monitor switches do not have a Synch switch and can cause damage to your equipment. No power supply is required.

£35.00

UNISTAND

Now at last you know where to put the paper; directly under your printer! One of those simple but brilliant ideas. The Unistand comes in two sizes the 400 and 700, the numbers being a rough guide to the amount of listing paper that can be stacked underneath. Either size will fit any printer.

Size 400 £10.95
Size 700 £11.95

HANDY KAP

A tough perspex cover that sits over your ST. Protects against dust, dirt, coffee, things that go bump, tiny fingers and inquisitive cats. A very sensible accessory, much better than a soft dust cover, custom built for the ST. Handy Kap literally sucks the dust off your keyboard by static electricity.

£7.95

MOUSEPATH Mouse Mat.

Your mouse is a piece of precision hardware but it is only as good as the surface it rolls on. Moving across the surface of the average desk can be like riding a bicycle over cobblestones to a mouse. The Mousepath mouse mat gives a smooth foam-backed ride.

£6.95

GRAFIX from ShackSoft

Our own new graphics program for High Resolution Monochrome Monitors only.

A very fast and responsive art package containing a host of graphic functions. PEN, LINE, PLOT, PIXEL editing, AIRBRUSH, TEXT, BOX, BAR, CIRCLE, POLYGON, FILL, ELLIPSE, LASSOO, TAKE CHUNK, USE CHUNK, OUTLINE, MIRROR, SHEAR, ROTATE, SCALE, DISTORT, WOBBLE, MIRROR, SCRAPE, USER DEFINED fillpatterns and more.

GRAFIX has been written to outperform its rivals both in speed and ease of use. Perspective and isometric drawings are supported by the PLINE and AXILINE functions. An infinite number of brush shapes, spray patterns and erasers are available.

GRAFIX is 100% mouse driven and works on five screens. Images can be copied freely from screen to screen. DEGAS and NEOCHROME format images can be imported via a CONVERT utility which converts then to the GRAFIX bit-image format. Finished GRAFIX screens can be converted to DEGAS format. This flexibility allows screens to be exported to applications like 1ST WORD PLUS.

GRAFIX will run on all ST's with mono monitors and is Blitter compatible.

£16.50

8E Chelsea Road, Lower Weston, Bath, Avon. Tel: (0225) 310300

ACE and Casio are offering you the chance to walk away with EITHER one of the new DG20 digital guitars OR the latest MT600 keyboard. Pick up a pen and get down to it NOW!

FUNK IT UP!

The Prizes

DG20 Digital Guitar

If you've never played a guitar in your life, this instrument will open up a whole new musical experience for you. If you have, then it'll blow you away. That's because the DG20 uses a MIDI OUT facility to drive any other MIDI instrument, so you can strum drums, strum synths, strum home keyboards, and generate sounds and effects you never thought possible.

The DG20 was reviewed in Issue 1 of ACE. It features 20 preset voices that you can combine with sustain, reverb, mute, and solo/chorus effects to take you straight into the charts. Sack the drummer – you've got 12 PCM (Casio's Pulse Code Modulation system) drum rhythms as well as four built-in drum pads to get things moving. There's also an 11-step transpose facility, footswitch, headphones, and built-in speaker. Add all that to the MIDI OUT facility and you've got a powerful instrument for generating a whole range of musical effects. Normally it would set you back £279 (including VAT)...but we're giving you the chance to walk away with one for the price of a stamp. Fill in the form and start dreaming...

MT600

This little gem really shows off Casio's paces. It's their latest model (RRP £225 + VAT) and offers no less than 40 preset tones, from Typhoons to Pearl Drops, Pipe Organs to Violins. It's eight note polyphonic with a four-octave mini-keyboard and is packed with features, including:

- **Chord/operation memory**, which gives you a basic sequencing function holding a stunning 1304 chord entries and 395 operational changes.
- **20 superb PCM auto-rhythms**.
- **Auto-accompaniment**, featuring the Casio Chord system that adds full chords and accompanying bass patterns at the touch of a single finger.
- **Full stereo out put.**
- **Pitch-bend wheel** adds new twists to your musical expression.
- **MIDI IN/OUT** means you can hook it up to other MIDI equipment, or drive it from your computer using appropriate MIDI software.

How to enter...

First, the difficult part – you'll need a pen. Once you've got that over with, the rest is easy. Think you can manage it? OK...Here goes...Hold the pen in your right hand (left if you're left handed) and fill in the form below. Don't forget to indicate whether, if you're a winner, you want the free keyboard or the free guitar. Then all you have to do is pop the form (or a photocopy) in the post...Easy!

✂ ----------Post this form (or a photocopy) to: ACE Casio Competition, 4 Queen Street, BATH, BA1 1EJ----------

Your name: _____ Your address: _____

Phone number: _____

_____

_____ Post code _____

The Questions:

1. Does the DG in DG20 stand for: (Tick appropriate box)
a) DODGY GEEZER ❒
b) DIATONAL GADGETRY ❒
c) DIGITAL GUITAR ❒
2. The MT600 features PCM rhythms. Does PCM stand for: (Tick appropriate box)
a) PETE CONNOR'S MUSIC (ugh) ❒
b) PERFECTLY CONTROLLABLE MIDI ❒
c) PULSE CODE MODULATION ❒

The Choice:

If I'm one of the lucky winners, I would like to receive:
DG20 Guitar ❒
MT600 Keyboard ❒

ENTRY FORM

Questionnaire section:

Your answers to these questions will help us to bring you a better magazine...

How much do you enjoy the different sections of ACE? Please rate each of the following sections out of 10:

News	__	**Screen test**	__
Letters	__	**Buyers' Guide**	__
Arcades	__	**Adventures**	__
Competitions	__	**Tricks'n'Tactics**	__
Graphics section	__	**Special Offers**	__
Music section	__	**ACE Pink Pages**	__

Is there anything new that you would like to see included in future issues of ACE?

_____

Rules:

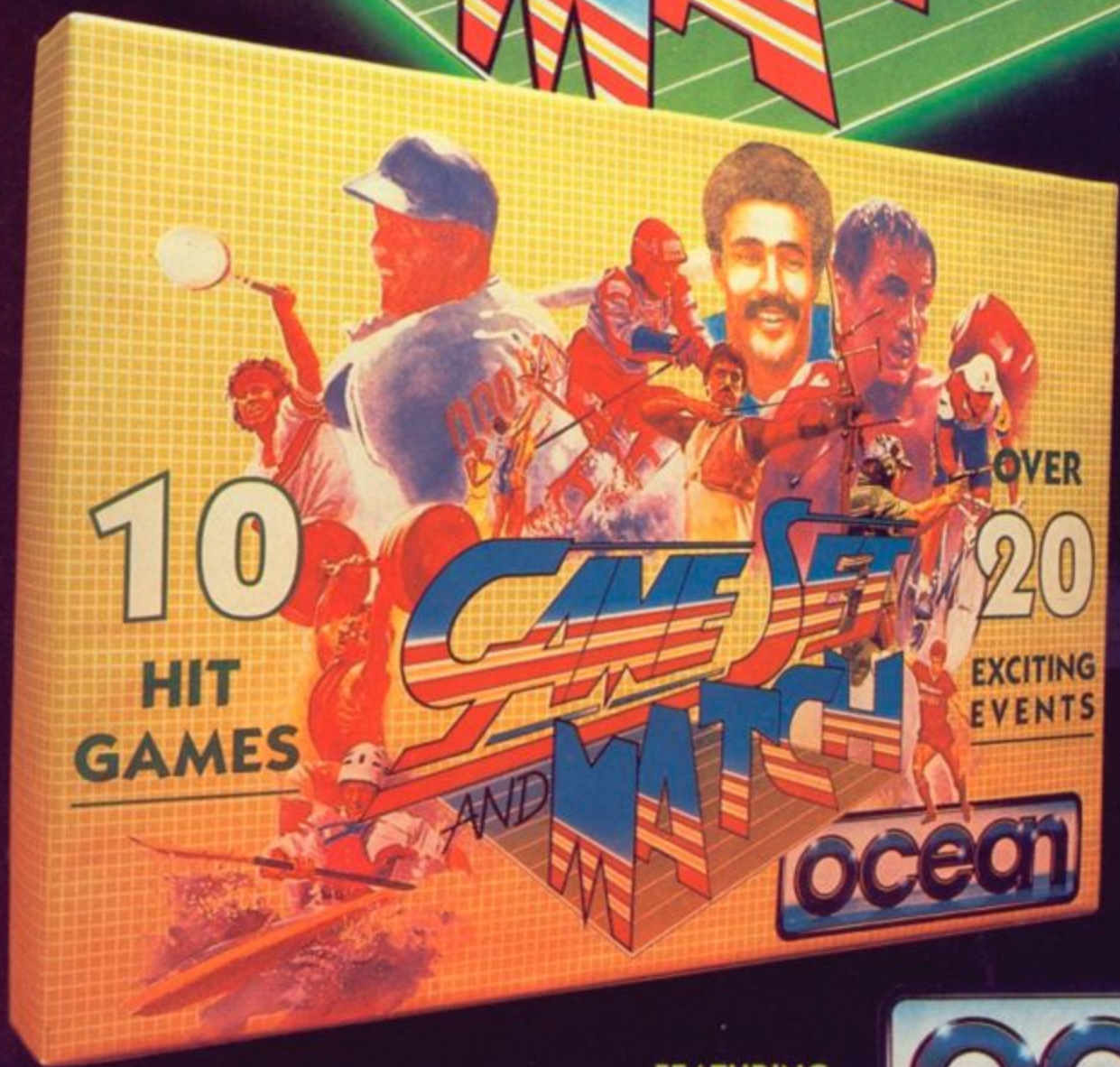
1. The competition is open to all residents of the United Kingdom and the Republic of Ireland except for employees of Future Publishing Ltd and Casio Electronics Company Ltd. 2. Only one entry per person is allowed. 3. The winner of the DG20 guitar will be the sender of the first correct entry indicating the appropriate choice of prize and selected at random by the judges after the closing date. 4. The winner of of the MT600 keyboard will be the sender of the first correct entry indicating the appropriate choice of prize and selected at random by the judges after the closing date. 5. The results of the competition will be printed in the March issue of Advanced Computer Entertainment, due on sale on Thursday, 11th February 1988. 6. All entries must be received by first post on Friday January 8th 1988. 7. The decision of the judges is final and no correspondence can be entered into.

10 HIT GAMES

The GREATEST EVER SPORTS PACK

OVER 20 EXCITING EVENTS

GAME SET AND MATCH



AVAILABLE FOR
AMSTRAD
COMMODORE
SPECTRUM
SPECTRUM + 3

CASSETTE
£12.95

DISK
£17.95

FROM YOUR LOCAL SOFTWARE DEALER NOW!

FEATURING

BASKETBALL · SOCCER · VAULT · SWIMMING · SHOOTING · ARCHERY · TRIPLE JUMP · WEIGHT LIFTING · PING-PONG · PISTOL SHOOTING · CYCLING · SPRING BOARD DIVING · GIANT SLALOM · ROWING · PENALTIES · SKI JUMP · TUG OF WAR · TENNIS · BASEBALL · BOXING · SQUASH · SNOOKER/POOL ·

ocean

Ocean Software Limited · Ocean House · 6 Central Street · Manchester · M2 5NS · Telephone 061 832 6633 · Telex 669977 Oceans G

Mozart – business presentation graphics created using Dicomed's £52, 000 Producer XP graphics workstation

COMPUTER GRAPHICS 87

Next time you're trying to do some animated 3D on your ZX81, you might like to think about what you could create if you could only save enough money for a *really* powerful machine – something costing a mere 20 or 30K, perhaps. Computer Graphics 87 displayed the Ferraris and the Lamborghinis of the graphics world. Chris Jenkins went along for ACE; he didn't have enough cash to buy anything, but he did bring back this report.

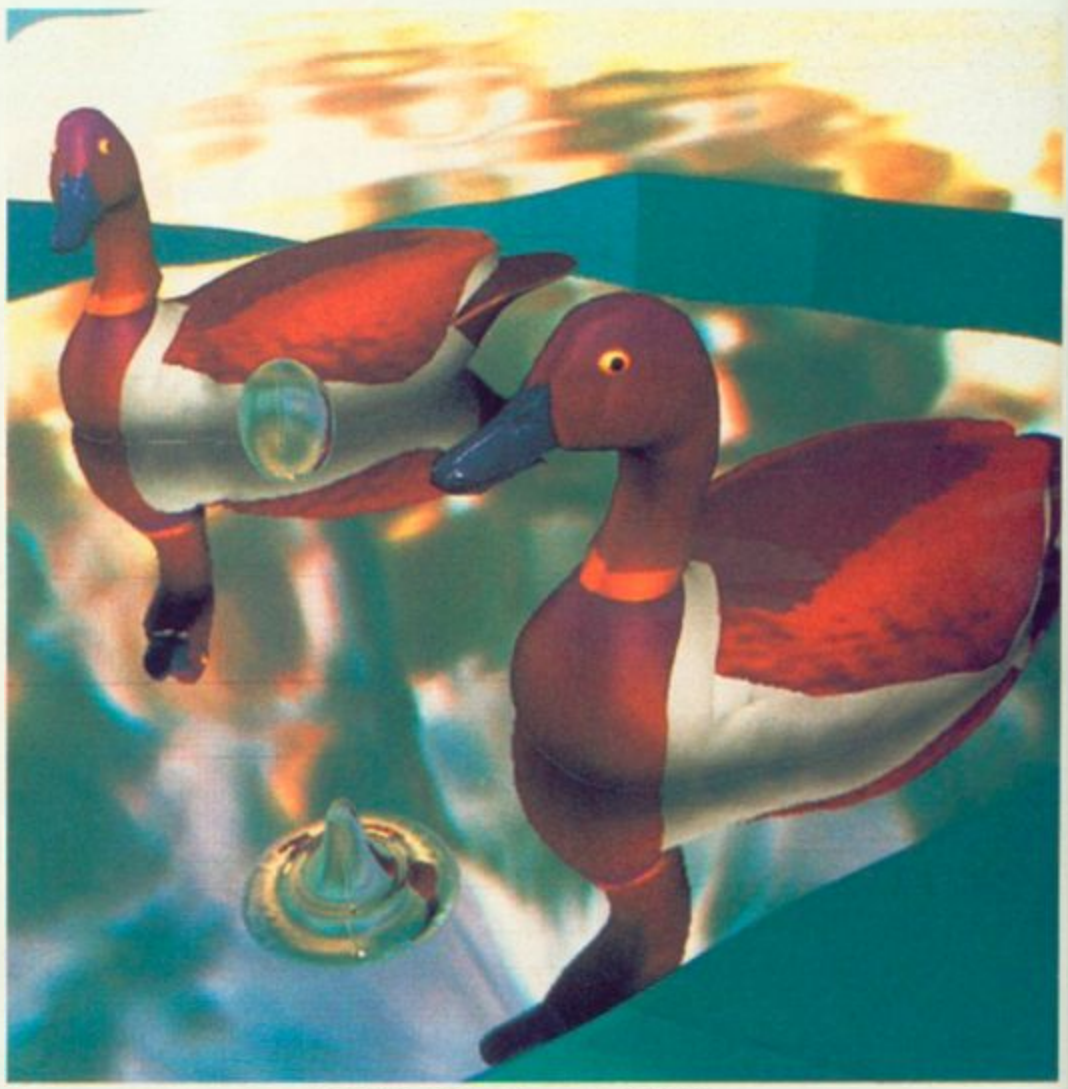
There's no doubt that good graphics sell computers; how how many Atari ST's and Amigas have been sold on the strength of such famous demos as Shiny Bubbles or the Juggler?

Spending £50,000 on a computer for its graphics capabilities alone is another thing altogether – yet that's what the exhibitors at the October Computer Graphics '87 Show at London's Wembley Conference Centre were trying to convince visitors to do.

The eighth show of its kind, CG'87 included a festival of computer-animated films, a series of very high-brow conferences, and displays from almost 150 companies involved in the very big business of making computers make pictures. The results were mind-boggling; a flood of images, some just about within the capabilities of high-end home computers, others so realistic that it was hard to believe they were rows of pixels and not the real thing.

The show covered four main areas; imaging, business graphics, pure design and animation. Imaging is the jargon for the transfer of computer images to other formats; obviously, however striking your picture, it's not doing you mucy good sitting on a computer unless it's intended purely for use in a game. Hardware such as digital still cameras, movie cameras, multi-colour plotters and laser printers was on show at prices to make your eyes water.

Even more expensive were the graphics systems themselves. At the low end, IBM PC-compatible software systems such as those from Dicomed and Genigraphics can produce a huge range of charts, graphs and diagrams using a simple data entry routine. The results can be polished up with different



Animated graphics from *Access* ad, by Digital Pictures.

text fonts, selectons of colours and background effects, to produce a slide or overhead projector image which should help convince the manging director that you really do deserve that raise.

Amiga Workstations

You can also put together an impressive graphics workstation using a Commodore Amiga 2000, with an additional maths co-processor chip, hard disk and plotting tablet. The Scottish Amiga Centre showed a system working out at around £8000 which produced some impressive work using software packages such as *Sculpt-3D* and *Forms in Flight*. Remember that in this world, £8,000 is considered a bargain-basement price.

The Amiga's 4096-colour palette and 640x400 pixel resolution is certainly impressive compared to most eight-bit computers.

Computer animation matted with live action in the Paramount TV series *Automan*

The real heavyweights in the graphics world, though, boast palettes of over sixteen *million* colours, and resolutions up to eight thousand lines.

The heavyweights...

Many of these are used for technical applications such as CAD (computer-aided design), or graphical analysis of geographical, meteorogical or metallurgical data. The same systems, with different software and peripherals, can also be used to produce pictures which no paint-and-paper artist could ever hope to create.

Letraset's Illustrator system, for instance, uses a 1024x768 pixel display and a palette of 248 colours from a choice of 16.7 million. You can either create a picture from scratch, or feed in a scanned photograph, or a video image, and rework it.

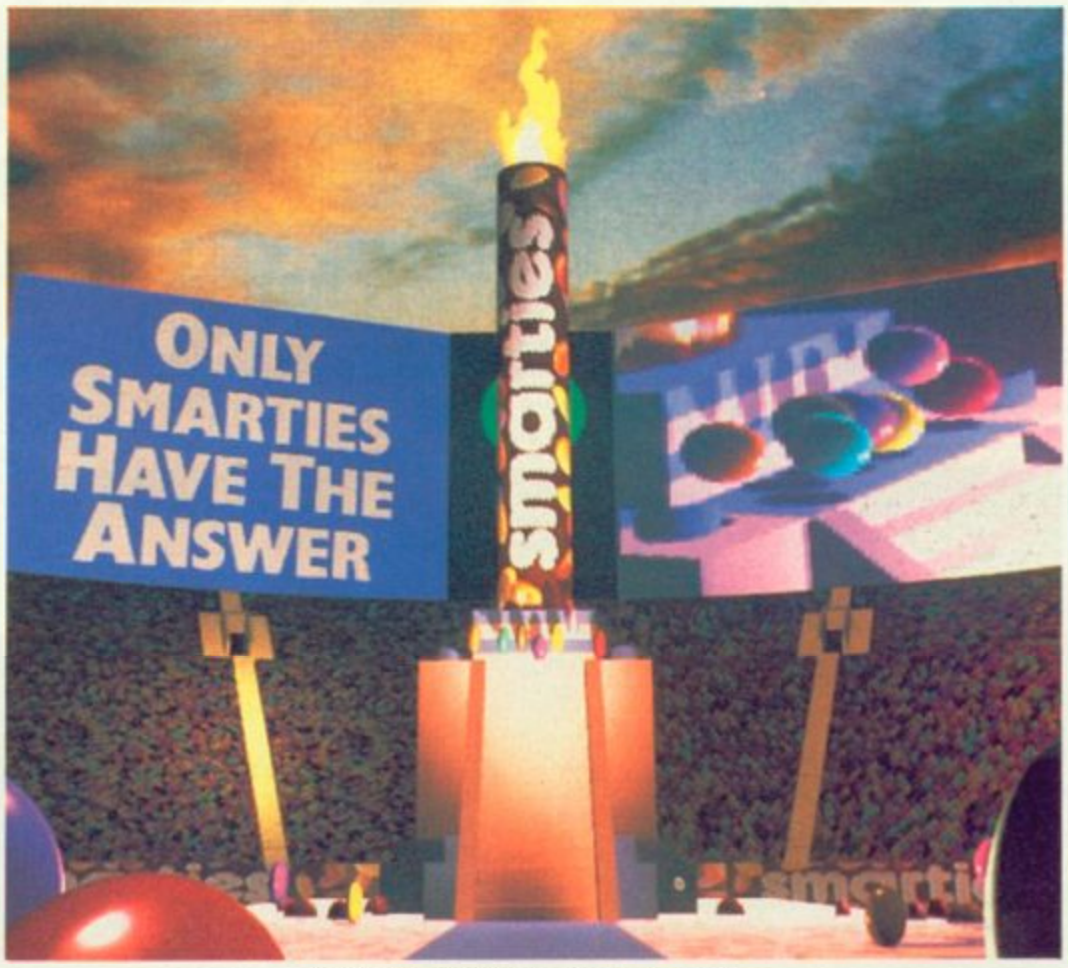
Illustrator features all the controls you would expect to find on a home computer paint package; polygons, solids, lines, brush shapes, airbrushes, flips, zooms, rotates and so forth. The finished picture can be output to film, colour printers, or video.

Really powerful systems like the Dicomed Producer XP make Illustrator look like ZX80. This £52,000 system has 46 Mb of data storage on hard disc, and a maximum output resolution of 8000 lines. No wonder some Dicomed images look so real that you want to reach out and touch them.

...and super-heavyweights

So far we've been talking about sytems with mere telephone-number prices. The next step up are the intercontinental telephone number machines, often over half a million pounds, which produce the sort of images which you see every day on television.

Perhaps the most impressive source of



Smarties ad , by Digital Pictures; more computer animation

animated computer graphics is Digital Pictures, who are responsible for the ITN News and Opportunity Knocks title sequences, and Smarties, Access and Yoplait adverts – these represent the most sophisticated computer graphics commercially available.

A typical Digital Pictures production begins with plans or solid models being converted to digital form using sophisticsted scanners. Some objects such as mountainous backgrounds can also be created "procedurally", using techniques such as fractals.

The results are stored in a Data General MV10000SX mainframe, then transferred to an IRIS 2400 realtime animation suite. The animation is set up using a wire frame representation of the various objects to be incorporated. These are manipulated with cursors to control the animation speed and direction. Key frames are defined, and the inbetween frames automatically generated by the computer.

Ramtek say that their 4322 graphics display system ' offers high performance for low cost' – they mean it costs less than £15K

When the animation has been planned, the information is transferred to a "frame Store" where the details of colour and lighting can be added, using techniques such as the deligtfully-named "Phong Shading" which realistically represents smooth reflective objects.

Techniques such as "texture mapping" allow video, computer or painted images to be incorporated into the animation, and other properties such as subtle texturing, transparency and translucency can be simulated too.

The whole animation can then be downloaded into a video editing system such as Quantel Paintbox, or incorporated with live action, before the finished piece is transferred to video, or to film at 2000 line resolution.

The results are simply staggering, as you can see for yourself from the graphics shown here. The cost, though, is equally staggering, so what can the budding computer artist hope to achieve with affordable equipment?

What's in it for you?

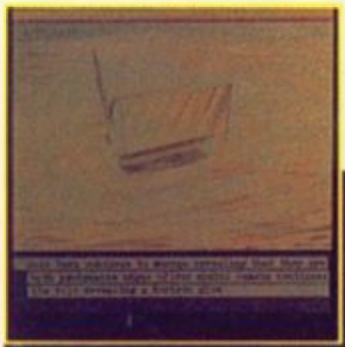
While the Atari ST and Commodore Amiga can already produce impressive results using software such as *Aegis Animator*, and hardware video genlock systems, the next wave of home computers will be even more impressive graphically.

Already, Acorn's £800 Archimedes is creating a stir with its Reduced Instruction Set Computing (RISC), which enable sophisticated graphics to be animated better than ever before on a home computer. Atari, too, is planning a transputer sytem which boasts resolutions from 1280 x 960 in four colours, to 512 x 480 with 16 million colours available. Again the processing speed will be such that animation and video interfacing capabilities should be impressive.

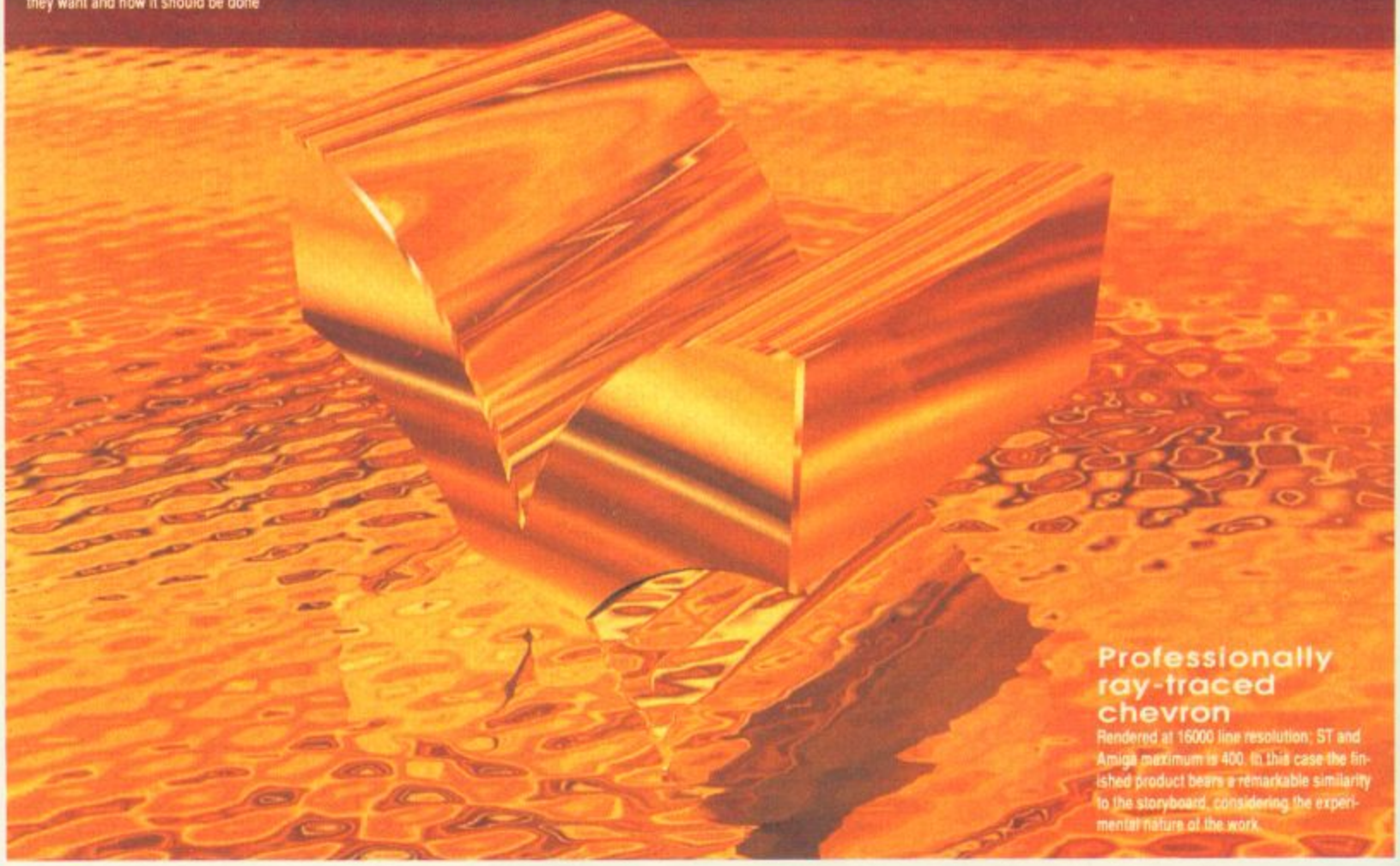
Techniques developed on the extremely expensive workstations used now will inevitably be avialable to the home user when the price of the tecnology comes down – as it inevitably will. So next time you see a stunning computer animation on TV, reflect that this time next year you might even be able to do the same thing yourself.

THE GOLD STANDARD

Some of the most advanced computer graphics you're likely to see is when you watch the old telly; adverts and, in particular, the station logos take the technology to its very limits. Brian Larkman brings you the story of how one such logo – the Yorkshire TV gold chevron – struggled in to existence.



Storyboard
To maintain a reasonable degree of artistic and technical control of an animation sequence a storyboard must be constructed. This is as important for a Film Director or Deluxe Video sequence on a PC as it is for a £1million advert or a £30 million movie. Each stage of the action must be portrayed in some detail; in an amateur production changes can be made 'on the hoof', but professionals usually know exactly what they want and how it should be done



Professionally ray-traced chevron
Rendered at 16000 line resolution; ST and Amiga maximum is 400. In this case the finished product bears a remarkable similarity to the storyboard, considering the experimental nature of the work

Unless you live in London and only ever watch Thames TV – and ACE readers are more adventurous than that, aren't they? – you must have noticed a huge increase in the quality of TV station 'idents' or logos; an improvement that is largely due to the growing importance of computers as design tools. The famous 4 started things off and has been followed by a host of other computer-designed and animated logos.

Another landmark in this process was reached in February of this year when Yorkshire TV unveiled their own new ident, a gold chevron Y rotating above a sea of liquid gold – so forcing Thames to postpone their own 'liquid logo'.

It's a simple enough image you might think, but a second look would reveal that the liquid from which that tyke chevron emerges is incredibly realistic. Anyone who has ever tried to draw even a static image of a liquid surface will realise how complex it can be, especially when more than one source of waves is involved.

The story of how this degree of realism was achieved illustrates perfectly the complexities of producing broadcast-quality computer graphics. It also shows how quickly the techniques of the graphics industry are becoming available on affordable home computers.

The cutting edge

As with almost every technological endeavour, the most original computer graphics are developed from ideas formulated by software engineers working at the cutting edge of research. One thrust of this edge has been

24 HOUR COMPUTER REPAIRS and COMPUTER SPARES

SINCLAIR

QUALITY APPROVED REPAIR CENTRE

AMSTRAD · SINCLAIR · AMSTRAD APPROVED REPAIR CENTRE · SEAL OF QUALITY

HOW TO GET YOUR SPECTRUM REPAIRED FOR ONLY £19.95

CALL IN AT OUR MANCHESTER CITY CENTRE BRANCH FOR WHILE YOU WAIT REPAIRS AND SPARES

SPECTRUM (only) KEYBOARD REPAIRS £10.00 THE CHEAPEST AROUND

ORDER NOW USING ACCESS

THE NO. 1 REPAIR CENTRE IN THE U.K. OTHERS FOLLOW

WHILE YOU WAIT SERVICE
CALL FOR APPOINTMENT

SPECIAL OFFER!

Why not upgrade your ordinary Spectrum into the fantastic DK Tronics typewriter keyboard for only **£31.50** including fitting VAT and return post and packing. Normal recommended retail price **£49.95**. Replacement printed DK Tronics key sets **£7.50** including post & packing.

SPECIAL OFFER!

Why not upgrade your 16K Spectrum to a 48K for as little as **£17.95** including VAT, post and packing. If you would like us to fit the kit for you just send us **£19.95** which is a fully inclusive price to cover all costs including return postage. Full fitting instructions supplied with every kit. Issue 2 and 3 only.

16K to 48K UPGRADE KIT

Update Your Rubber Keyboard to a New Spectrum+

Fitted for only **£29.95** + £1.50 post & packing.
(Also D.I.Y. Kit available for only **£24.95** + £1.50 p & p)
Same day service LIMITED OFFER

ZX81 SPARES NOW IN STOCK

TEN ★ REPAIR SERVICE

- While you wait Spectrum repairs **£22.50**. Also spare parts over the counter
- All computers fully overhauled and fully tested before return.
- Fully insured for the return journey.
- Fixed low price of **£19.95** including post, packing and VAT. (Not a between price of really up to **£30.00** which some of our competitors are quoting).(Mail order only)
- Discounts for schools and colleges.
- Six top games worth **£39.00** for you to enjoy and play with every Spectrum repair.
- We repair Commodore 64's, Vic 20's, Commodore 16's and Plus 4's.
- The most up to date test equipment developed by us to fully test and find all faults within your computer.
- Keyboard repairs, Spectrum rubber key boards only **£10.00**.
- 3 month written guarantee on all repairs.

TRADE REPAIRS most welcome

BEST SERVICE — BEST PRICES!

EXTENSION RIBBON

56 Way ribbon cable to extend your ports for your peripherals **£10.95** plus £1.50 p & p

SOUND THROUGH YOUR T.V. WITH MEGASOUND

Want better sound through your T.V.? Hear sounds you've never heard before? Then you need 'MEGA-SOUND'. Play games with unbelievable mega sound.
£10.95 plus £1.50 p & p

REPLACEMENT POWER SUPPLY

Spectrum replacement power transformer suitable for all makes of computer **£9.95** plus £1.50 p & p

JOYSTICK & INTERFACE PACK

The Cheetah 125+ Rapid Fire joystick and competition pro 200 Dual Port interface normal *recommended retail price* £21.90 - purchase together special offer price **£18.25**. Joystick available as separate item **£8.95** or interface available as separate item **£12.95** plus £1.50 p & p

KEYBOARD MEMBRANES

Spectrum keyboard membranes **£5.50** plus £1.50 p & p
Spectrum Plus spare keyboard membranes **£12.90** plus £1.50 p & p
ZX 81 membranes **£5.00** plus £1.50 p & p

ARE YOU ANOTHER CUSTOMER - fed up waiting weeks for your estimate?

Need your computer repaired fast? Then send it now to the **Number One Repair Company in the U.K.**, or call in and see us at our fully equipped 2,500 square foot workshop, with all the **latest test equipment available**. You are more than welcome.
We will repair your computer while you wait and help you with any of your technical problems. Commodore computers repaired for only **£35.00**. Please note we gave you a 100% **low fixed price of £19.95** which includes return post and packing, VAT, not a between price like some other Repair Companies offer. We don't ask you to send a cheque in for the maximum amount and **shock you** with repair bills **£30** upwards. Don't forget we are Amstrad aproved for quality and speed, don't risk your computer to any other unauthorised repair centre. We dont just repair the fault and send your computer back, we give your computer a:-

FREE OVERHAUL WITH EVERY REPAIR WE DO:-

We correct **Colour, sound, Keyboard, Check the loading and saving chip**, Put new feet on the base if required, Check for full memory, check all sockets including ear/mike and **replace where needed**. All for **an inclusive price of £19.95 including VAT, all parts, insurance and post and packing. No hidden extras whatsoever**. We don't have to boast too much about our service as we have thousands of customers from all over the world highly delighted with our service. A **first class reputation for speed and accuracy**. Don't forget, we also now have a Service Branch in **Manchester City Centre** for while you wait service.

COMMODORE POWER SUPPLY

Commodore replacement power transformer **£29.00** plus £1.50 p & p

ON-OFF SWITCHES

FOR THE SPECTRUM AND SPECTRUM +
ORDER No
1067 SPECTRUM
1067A SPECTRUM+
£4.95 + 1.50 p + p

URGENT NOTICE Don't be misled by adverts showing 'between prices.' A recent complaint against a Manchester repair firm, Mancomp, was upheld by the Advertising Standards Authority on two counts, "It had stated BBC repairs between £14 and £45 then charged the customer £85." Their guarantee policy was misleading as it did not make clear that all repairs were not covered.

USE ANY JOYSTICK WITH YOUR SPECTRUM + 2

SINCLAIR JOYSTICK ADAPTOR FOR CONNECTING SPECTRUM +2 COMPUTERS TO MOST JOYSTICKS

ORDER No 1062 RRP £5.95 + 1.50 p + p

NEW THE VIDEOVAULT COMPUTER COMPANION

EDITION NOW HOT OFF THE PRESS

New bigger catalogue now available containing over 2,500 items including software for all computers, joysticks, spare parts, business software, books, plus many more. Just send 2×18p stamps for your free copy. Over 20 pages full of top quality products delivered to your door by return post.

FULLY REPAIRED AND TESTED ON MOST ADVANCED TEST EQUIPMENT IN EUROPE!

VideoVault Ltd.

POST + PACKING CHARGES UK ONLY
OVERSEAS POST + PACKING CHARGES PLEASE WRITE FOR QUOTE

140 High Street West, Glossop, Derbyshire SK13 8HJ
Tel: 04574-66555/67761 Head Office & Access orders, queries.
Manchester 061- 236 0376 while you wait repair centre only.

OPEN 7 DAYS A WEEK
MANCHESTER MON-SAT ONLY

NOW SPECIAL OFFER

6 GREAT FREE GAMES
NORMAL RECOMMENDED RETAIL PRICE £39.00
YOURS FREE WITH EVERY SPECTRUM REPAIR

© COPYRIGHT VIDEOVAULT LTD No. 789003 FAX No. 04574 68946

in the realistic portrayal of liquid surfaces. Stuart McEwen, software designer at the YTV logo producers Electric Image, has evolved algorithms to simulate extremely complex liquid surface movements; yet despite all his work it took a coincidence to fully 'realise' his ideas for TV.

Charged with the responsibility of devising a new ident for YTV, Jeff Parr – head of promotional graphics for the company – was ambitious; 'I wanted to do something impossible', he says; and McEwan seemed to be the man for the job. Discussing the various impossibilites with Electric Image the idea of a moving liquid surface seemed the most likely. The next step in realising such an idea was the production of a series of storyboards.

The illustrations show the ones that were approved by the YTV management. They show the various stages of the animation:

The *Tomorrow's World* logo: tomorrow's computer graphics – today

BT – all those phone bills pay for some nifty graphics

TV station Identity Symbol

For a variety of reasons, the production of station logos – idents – has become the testing ground for new computer graphics techniques. TV companies are not shy of spending cash in competition for both viewers and advertisers , so the prestige of a successful logo is important. TV companies are also in collaboration with the advertising industry; its financial clout and technical expertise in ramming home a visual message are readily available. Flashy idents that are more than just corporate symbols are therefore almost inevitable.

the emergence of the glistening gold chevron from the liquid gold; the surface uncannily like the final image when you consider the software was not yet written; the solid yellow Y rotating against a black background. Next came the difficult bit.

Simulating software

Having said that he could do the impossible Stuart McEwan now had to write the software to set up the simulation. This was to involve the first commercial use in Europe of liquid simulation with Ray Tracing – but using the same basic principles as are available to Amiga owners from *Sculpt 3D*. Although the groundwork had already been done by other people, it was still necessary to study several books on oceanography in order to devise the algorithms that accurately reproduced the movement of a liquid when acted upon by arrange of forces, including wind and tide. For example, one source of waves produces a straight line or concentric rings; two sources give interference patterns; more than two and the picture becomes very complex.

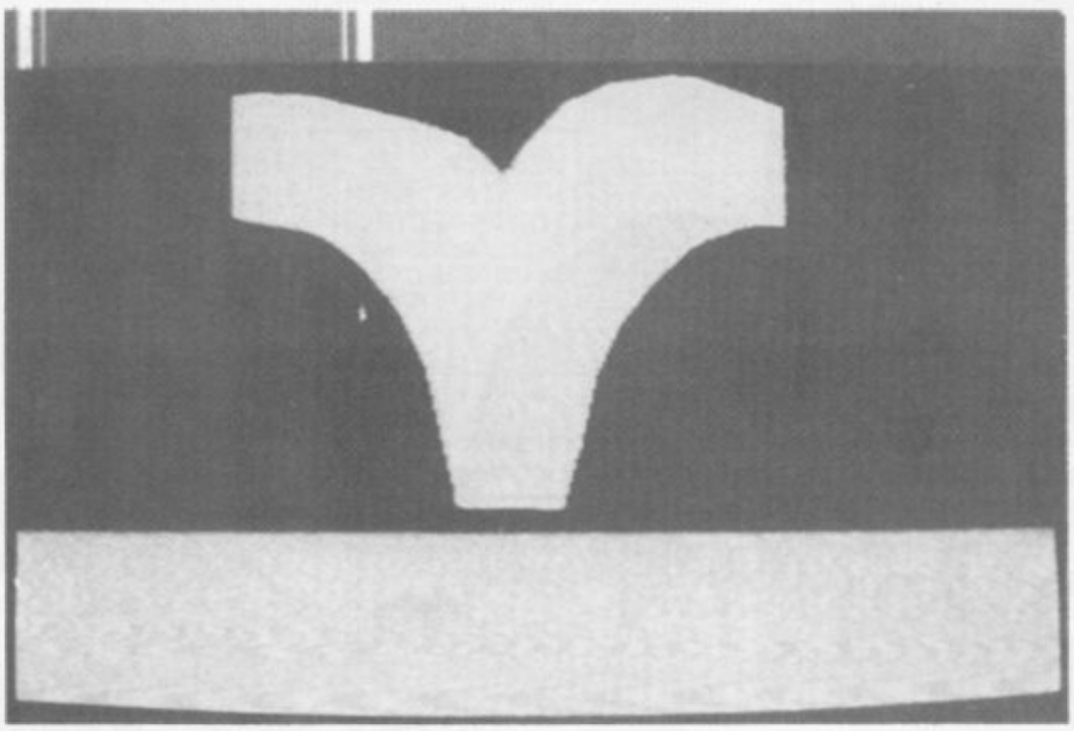
Three months of working day and night and the simulation was complete; but although it was technically correct the surface movement still lacked a certain something that McEwan could not quite get right.. weeks of frustrating work did not provide an answer. In the end the finishing touch was provided by Jeff Parr; after a few hours sketching the water movements from his hotel room overlooking St. Katharine's Dock in London the intuitive clue was found.

With the insight that these sketches provided McEwan was able to perfect the animation, a fine example of the value of collaboration between software designers and graphic artists.

A system called Doris

A still from the final sequence can be seen on the previous page. Electric Image use a system they call DORIS. It consists of a VAX11/780 connected by Econet to four Silicon Graphics IRIS workstations and a Gould POWERNODE frame-buffer developed by Rediffusion for their flight simulators. Altogether, a pretty powerful system costing several hundred thousand pounds. Nevertheless, the final image shown above took over an hour to render (paint) – though it IS produced at an incredible 16, 000 line resolution.

The final sequence, rendered at lower resolution, took 23 minutes per frame. This compares to about 30 hours for the mockup of the YTV chevron produced using Sculpt 3D. In spite of this it is still quite amazing that Ray Tracing should be available at all for a home computer. If you have the time – approximately 16 days per second of animation time – it is even possible to make an animated sequence. With any luck *Animate 3D* – by *Sculpt3D* author Eric Graham – will cut this time down a bit and make animating a ray-traced sequence rather easier. Your results will be poor compared to DORIS's – but then she cost 1500 times the price of an Amiga! ●



Amiga ray-traced chevron

Produced with *Sculpt 3D*. Obviously much lower resolution but the reflective effect is still quite dramatic. The most obvious clue to the difference is the clear aliasing (jagging) and the less pleasing reflections. After a week of trying to get this effect with the Mirror Texture option it became obvious that Shiny actually was the correct choice. As each full ray trace takes about 20 hours it can take some time to detect such errors. The pro version uses sophisticated specular reflection algorithms not available from *Sculpt*.

NEXT MONTH

Next month we promise – cross our hearts and hope to die – that we'll be bringing you a selection of readers' artworks; pressure of space in this Christmas issue meant that we had to hold over those exciting pictures.

And if you don't think you're in a fit state to be showing your work around at the moment, don't worry – we'll also be starting our How To Do It series on computer graphics; could you be the next Leonardo? You won't know unless you try; so don't miss the next ACE!

BYTEBACK

THE ATARI ST SPECIALIST

BEST PRICES *FASTEST* DELIVERY!

GAMES	ONLY		ONLY
Star Trek	13.95	Star Wars	13.95
Backlash	13.95	Captain America	13.95
Outrun (Dec 30)	13.95	Gauntlet II (Ded 14)	13.95
Hunt for Red October	16.95	Missing One Droid	6.95
Defender of the Crown	20.95	Bards Tale	16.95
Rana Rama	13.95	Barbarian (Palace)	13.95
Chopper X	6.95	Mission Elevator	13.95
Space Port	13.95	Road War Europa	16.95
Swooper	13.95	Blue War	13.95
Diablo	10.45	Chessmaster 2000	16.95
Impact	10.45	3D Galax	13.95
Rings of Zilfin	16.95	Trivial Pursuit	13.95
Hollywood Poker	10.45	Tai-Pan	13.95
F15 Strike Eagle	16.95	Terrorpods	16.95
Indiana Jones	13.95	Skulldiggery	13.95
Addictaball	10.45	Airball Construction	10.45
Arctic Fox	13.95	Strip Poker	13.95
Sentinel	13.95	Road Runner	16.95
Deathstrike	10.45	Eagles Nest	13.95
Skyfox	16.95	Goldrunner	16.95
Barbarian	16.95	Plutos	10.45
Sub Battle Simulator	16.95	Prohibition	13.95
Leaderboard	16.95	Gauntlet	16.95
* Tournament disk	6.95	Arkanoid	10.45
Turbo GT	10.95	3D Chess	16.95
Ninja Mission	6.95	Silent Service	16.95
Strike Force Harrier	16.95	Starglider	16.95
Flight Simulator 2	34.95	Colonial Conquest	20.95
* Scenery Disks 7 & 11	16.95	Balance of Power	20.95

ADVENTURE S	ONLY		ONLY
Not a Penny More	13.95	Mortville Manor	16.95
Nord and Burt	20.45	Plundered Hearts	20.95
Gnome Ranger	10.45	Knight Orc	13.95
Sidewalk	13.95	Annals of Rome	16.95
Space Quest	16.95	Fahrenheit 451	13.95
9 princes in Amber	13.95	Leather Goddesses	20.95
Perry Mason	13.95	The Lurking Horror	20.95
Statinfall	16.95	Guild of Thieves	16.95
Bureaucracy	23.95	Alternate Reality	16.95
Hitchhikers Guide	20.95	Ultima 2 or 3	16.95
Zork (1, 2 or 3)	20.95	Jewels of Darkness	13.95
Silicon Dreams	13.95	Pawn	16.95
Black Couldron	20.95	Winnie the Pooh	16.95

Kings Quest 3 Pack! (Kings Quest I, II, and III) **18.50**

ART AND DESIGN	ONLY		ONLY
Advanced Art Studio	16.95	Easy Draw 2	55.95
GFA Draft	69.95	CAD 3D	39.00
Degas Elite	16.95	Art Director	34.95

Cyber Studio (Cad 3D 2.0 + Cybermate) **62.95**

Genesis	64.00	3D Developers Disk	24.00
Human Forms Disk	24.00	Architecture Disk	24.00
Future Design Disk	19.50	StereoTek 3D Glasses	145.00

UTILITIES	ONLY		ONLY
Superbase Personal	74.95	Publishing Partner	119.95
Ram Disk/Spooler	18.50	Trimbase	67.50
VIP Professional	179.95	Megafont ST	22.50
ST Doctor	13.95	Word Writer	59.95
Signum!	116.95	GFA Companion	22.50
STuff	18.50	Zoomracks 2	47.95
Pro Sound Designer	45.00	First Word Plus	59.95
Saved	20.95	Back pack	35.95
Fastcom	36.95	K-Data	36.95
K-Comm 2	36.95	K-Spread 2	59.95
K-Switch	22.50	ProCopy	27.50

Timeworks Trio Special Offer! (RRP 259.85) **139.00**
Word Writer, SwiftCalc, Data Manager, Softline Support Service!

LANGUAGES	ONLY		ONLY
Hisoft Basic	59.95	Fast ASM	13.95
Fast Basic (Disk)	32.95	Fast Basic (Rom)	64.95
GFA Basic	36.95	GFA Basic Compiler	36.95
K-Seka	36.95	MCC Assemblor (NEW)	36.95
MCC Lattice C (3.04)	69.95	MCC Pascal (2)	69.95

HARDWARE	ONLY		ONLY
Locking Disk Box (80)	12.00	Furry Mouse Cover	7.00
Locking Disk box (40)	9.00	Mouse Mat	9.00
3.5" Disks SS/DD (x10)	12.00	Keyboard cover	8.00
Arcade Microswitch Joystick	17.00	Quickshot Turbo	13.00
Joystick/Mouse extension	4.95	Quickshot II	8.00

All Prices include VAT and FIRST CLASS POST
All Stock Items sent by RETURN OF POST
Telephone (0636) 79097 for 24 HOUR SERVICE!

VISA

BYTEBACK Dept. Ace, 6 MUMBY CLOSE, NEWARK, NOTTS NG24 1JE

● Screen Scene

FOOTBALL DIRECTOR

D&H GAMES
Commodore 64/128
Price £8.95

After a weekend in which I watched my beloved QPR rise to the top of Division One, what more could I want than a good whirl at a football game — wrenching *Football Director* from a disillusioned Mike Pattenden's hands I was off. *Football Director* is the first offering I've seen from the soccer crazed software house in Stevenage, so it was with a certain degree of curiosity that I cast my eye over this.

The packaging was the first thing to catch my eye, it seems to bear a very strange likeness to Imagine's *Super Soccer*, still ... mustn't grumble. Whilst loading up the game I thought I'd have a customary read of the instructions only to find there weren't any, nothing other than an extensive list of the game's features, and a guide to the prices you can expect to pay for players.

When you have chosen your team (QPR naturally) you may then either change any other team names (try 'Q.P.R.' to 'Donkey' — *Ed.*) and then on to the main menu. The game is controlled by pressing the initial letter of the option you wish to use. The options are:

Play Match: get stuck in there, the moment of truth. Can your boys in the league do what they did in training? Only choose this when you are satisfied you have selected your strongest squad, as once you've kicked off you cannot make any other changes for ninety minutes. The match is shown with the two teams names written on screen, and the clock ticks away (a match takes ninety seconds). When someone scores, the goal and the scorer are shown under the team.

After your match is finished the other results from your division are shown, and then your wage bill and weekly news. The weekly news tells you if you made or lost money this week, if any players are injured, and even tells you if there was any crowd trouble.

Check match: This option allows you to size up your opponents, it tells you their league position, their formation, and the skill of their goalkeeper, defence, midfield, and attack, so you can adjust your squad in order to wallop them!

Fixtures: This shows you a table of your previous results and the matches you have left to play in your thirty-eight game season.

Extra training: This option allows you to give extra training to either the goalkeeper, defence, midfield, or the attackers. This is in order to improve their skills. You can train them for any length of time between one to nine hours, but don't give them too long as they may slack or even get injured.

Transfer Market: As you are given only half a million pounds to begin with you ought to be very careful at the transfer market as the striker you buy could have excellent potential. Then again he could be the next Alan Smith! Each player has a certain amount of skill between one and nine. You can expect to pay any thing between £10,000 and £100,000 for a player and the intay does give you a key to help yourself make successful bids.

Injuries/Goals: This gives you a run-down of who is injured, how many goals have been scored, and how many the 'keeper has conceded in your squad.

Bank: As in life itself you can obtain a company loan, but as in life itself it is a very small one with a very large rate of interest. You can also obtain a mortgage should you wish to build a new stand.

Gamble: This tempting option allows you to bet that your team will win the league title, F.A. or League (Limewoods) Cup, or for the less extravagant of you just to simply gain promotion. You can bet anything up to £100,000.

Employees: At this option you can hire a coach, physio, and a team scout all of which are fairly necessary. You can also hire a youth team manager which at £2000 a week may seem rather expensive, but every so often a promising young lad qualifies to the ranks of the big boys.

Shares: Every football director is a bit of a capitalist — some more than others (Yes, you Mr Bulstrode!). Watch your share prices rise and fall, and decide when to sell or buy, but take my advice don't sell to Marler Estates!

Insure: I like this. Should any of your players get injured, and you have taken out a policy, you're in the readies for a while.

Build Stand: Why not do just that? Naturally it costs.

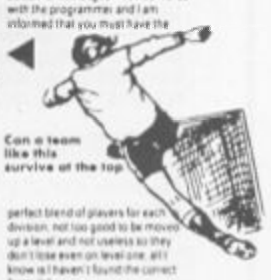
Postponements: Simply tells you if there are any.

Level: This is a nasty one. There are three levels easy, normal, and hard. With normal you can choose which level you wish to start on, but the nasty evil, wicked, twisted, programming team have been extremely cunning and taught the computer to put you up a level if you are playing too well, and won't allow you to turn it down. I don't wish to sound like a wimp with sour grapes but this is indeed a bitch! If you are bottom of the league and getting thoroughly beaten then you are permitted to continue getting slaughtered on easy level. But then should you start playing half decently it's on to the next level you go which means you'll fly down to the bottom of the league. I've had words with the programmer and I am informed that you must have the perfect blend of players for each division, not too good to be moved up a level and not useless so they don't lose even on level one, all I know is I haven't found the correct formula!

Football Director is an extremely competent simulation/football strategy game. It has the correct blend of speed, realism, and playability not to be found on any other game of this type since *Football Manager* (which I confess I am thoroughly sick off) and for this reason if it is better than the old Addictive classic.

It is a rather tricky game but sheer patience will soon overcome this. The 64 needs good football games like Bristol City need good players (Oi! — *Ed.*) and this is one.

Ferdy Hamilton



Can a team like this survive at the top

Graphics	10
Sound	10
Toughness	10
Endurance	10
Value	10
Overall	**8**

"COMMODORE USERS"
Review October Issue

FOOTBALL DIRECTOR

D&H/£8.95

Marcus Although most of the games industry has been cornered by the big companies with their vast marketing spends, advertising budgets and freebie lunches for Dr Berkmann (more, please!), there's one tiny sector that's still well under control of the independents — the footie management simulation. It's probably got much to do with the massive success of *Kevin Toms' Football Manager*, which has bobbed in and out of the charts for nigh on five years and is probably the best selling Speccy game ever. (Is it? I'd be interested to find out.)

The best of the current crop is D&H Games' *Football Director*, which is about to be made widely available after some time on mail order only. Written by De Salis and Huggard it's a no-frills sim which cuts out any unnecessary graphics and attempts at arcade action and sticks to what footie sim fans really want — pure strategy. The packaging's modest — a simple inlay card with the barest of instruction — but if you're interested in a game like this, you're going to know exactly what's required, and what you don't get immediately you'll pick up along the way.

Starting at the bottom of Div 4 (where else?) you must pick your team and battle through a full league programme without throwing all your money away. You can mortgage your club when the going gets tough (which it will) and also borrow dosh from the bank. There's a full timetable of League, FA Cup, League Cup and European matches. Players have skill points, which are influenced by morale, which is naturally decided by winning or not. Morale is surprisingly fragile. There are appalling hazards all along the way — injuries, sendings off, postponements, crowd violence, retirements, interest, tax, other managers trying to poach your players, even sackings. There are fixture lists, automatic updatings of the league, midweek games, the opportunity to buy or sell shares, international games, loads of transfers and even three skill levels. It makes *Football Manager* look like a tatty old Basic game. If you like this sort of thing (which I do), you'll love this.

If you have problems finding it in the shops, send £8.95 (cheque/PO) to D&H Games, 19 Melne Road, Stevenage, Herts SG2 8LL. Oh, and remember to save regularly — it has the occasional tendency to crash!

YS CLAPOMETER

A definite Match Of The Day for football fans. Low on action, but high on strategy. You'll be over the moon with this one!

TOTAL 8

"YOUR SINCLAIR"
Review November Issue

"Don't take our word for it, take the word of the reviewers who like strategy games".

SPECTRUM £8.95 • COMMODORE £8.95 • AMSTRAD £8.95

This game also available by mail order at £8.95 per cassette. Send your cheque/P.O. made out to D & H Games plus a large SAE, with 25p stamp attached. Please write your name and address on reverse side of cheque. (72 hours delivery).

D&H GAMES

19, Melne Road, Stevenage,
Herts SG2 8LL
☏ (0438) 728042

TURTLESOFT

Check our special deals on 1040's

! ! ! ! ! TURTLE PRICES ARE THE ONES TO JUDGE THE COMPETITION BY ! ! ! ! !
! ! ! ! ! WE ARE SURE YOU WON'T FIND LOWER PRICES AND FREE DELIVERY ! ! ! ! !
! ! ! ! ! FIRST CLASS SERVICE AT FIRST CLASS PRICES ! ! ! ! !

Computers	RRP	Our Price
520ST-FM Keyboard/Mouse/.5 meg drive	299.95	259.95
520ST-FM Keyboard/Mouse/.5 meg drive/SM125 Mono Monitor	449.95	369.95
520ST-FM Keyboard/Mouse/.5 meg drive/SC1224 Colour Monitor	699.90	549.95
1040ST-F Keyboard/Mouse/Software only	499.95	369.95
1040ST-F Keyboard/Mouse/1 Meg drive/Mono Monitor	599.95	479.95
1040ST-T Keyboard/Mouse/1 Meg drive/SC1224 Colour Monitor	899.90	669.95
MEGA-ST 2 Meg Ram/Mouse/Mono Monitor	999.95	869.95
MEGA-ST 4 Meg Ram/Mouse/Mono Monitor	1299.95	1129.95
MEGA-ST 2 Meg Ram/Mouse/Colour Monitor	1299.95	1089.95
MEGA-ST 4 Meg Ram/Mouse/Colour Monitor	1599.95	1349.95

Printers		
Atari SMM804 ST Printer + ST Lead	199.95	149.99
Panasonic KXP-1081 Printer, Epson comp. NLQ. 120CPS+ST lead	279.95	174.99
MP165 Printer, Epson compatible. NLQ. 165CPS+ST lead	263.35	199.99
MP135 Printer, Epson compatible. NLQ. 135CPS+ST lead	194.95	159.99
MP200 80 Col Printer, 200CPS. Epson compatible. NLQ 40CPS	343.85	294.99
MP201 136 Col Printer, 200CPS. Epson compatible. NLQ 40CPS	401.35	329.95
MP480 80 Col Printer, Epson compatible. NLQ. 480CPS+ST lead	424.35	339.95
MP26 132 Column Daisywheel Printer, 26CPS. Qume/Diablo Std	299.95	249.95
MP40 158 Column Daisywheel Printer, 40CPS. Qume/Diablo Std	435.85	349.95
Atari Lazer Printer (NEW)	1299.99	1159.95

Disc Drives	RRP	Our Price
Atari One Meg Drive 3.5"	199.95	169.99
Cumana One Meg Drive 3.5"	149.95	124.95
Cumana 5.25" ST Drive. (CSA1000S)	194.35	159.95
Micro Peripherals One Meg Drive 3.5"	149.95	119.95
Atari 20 Meg Hard Disc Drive (New Model SH205)	599.95	539.95
Supra 20Mb Hard Disc + Utilities	599.95	559.95

Monitors		
Atari Medium Res Colour Monitor	399.95	299.95
Philips CM8833 Colour Monitor + ST lead	329.95	279.95
Philips CM8533 Colour Monitor + ST lead	319.95	269.95
Philips CM8852 Colour Monitor + ST lead	349.95	299.95
Atari High Res Mono Monitor	149.95	119.95

Discs and Things		
Microdeal Battery Backed Clock 520/1040 (New Upgraded Model)	34.95	27.99
Colour/Monochrome Switch (Allows 2 Monitors Connected)	29.99	25.99
SSDD 3.5" Discs (10) + Library Case (10) – LOW LOW PRICE –	17.95	11.95
DSDD 3.5" Discs (10) + Library Case (10) – LOW LOW PRICE –	22.95	14.95
Top Quality Branded 3.5" DSDD Discs (10) – LOW LOW PRICE –	27.95	18.95

Atari ST Software Arcade/Adventure/Strategy	Retail Price	Our Price
10th Frame	24.95	16.95
221B Baker Street	24.95	16.95
Airball	24.95	16.95
Altair	19.95	13.95
Alternate Reality	24.99	16.95
American Football (GFL)	24.95	16.95
Arctic Fox	19.95	13.95
Arena/Bratacous	34.95	23.95
Arkanoid	14.95	10.49
Auto Duel	24.95	16.95
Backlash	19.95	13.95
Barbarian	24.95	16.95
Bards Tale	24.95	16.95
Basketball (2 on 2)	24.99	16.95
Battlezone	14.95	10.49
Boulderdash Construction Set	24.95	16.95
Brave Starr (Dec 87)	Phone	Phone
Bridge Player 2000	19.95	13.95
Bureaucracy	34.99	23.95
Captain America (Nov 87)	Phone	Phone
Championship Baseball	24.99	16.95
Charlie Chaplin (Nov 87)	Phone	Phone
Chess (Psion)	24.95	16.95
Colonial Conquest	29.99	20.95
Crafton & Xunk	19.95	13.95
Crystal Castles	14.95	10.49
Damocles (Mercenery II)	Phone	Phone
Deathstrike	14.95	10.49
Deep Space	34.95	23.95
Defender of the Crown (Soon)	29.95	20.95
Deja Vu (Soon)	29.95	20.95
Diablo	14.95	10.49
Eden Blues	24.95	16.95
Extensor	19.95	13.95
F-15 Strike Eagle	24.95	16.95
Fahrenheit 451	19.95	13.95
Flight Sim Scenery Disc 11	24.95	16.95
Flight Sim Scenery Disc 7	24.95	16.95
Flight Simulator II	49.95	35.95
Football Fortunes (B Clough)	24.95	16.95
Gauntlet	24.99	16.95
Gauntlet II (Soon)	24.99	16.95
Golden Path	19.95	13.95
Goldrunner	24.95	16.95
Guild of Thieves	24.95	16.95
Hades Nebula	19.95	13.95
Hard Ball	24.95	16.95
Hitchhikers Guide	29.95	20.95
Hollywood Hijinx	29.99	20.95
Hollywood Strip Poker	19.95	13.95
Indiana Jones	19.95	13.95
International Karate	19.99	13.95
Into the Eagles Nest	19.95	13.95
Jewels of Darkness	19.95	13.95
Journey Into the Lair (V/Disc)	99.95	79.95
Joust	14.95	10.49
Jupiter Probe	14.95	10.49
Karate Kid Part II	24.95	16.95
Kings Quest III	24.99	16.95
Knight Orc	19.95	13.95
Leader Board	24.95	16.95

Atari ST Software Arcade/Adventure/Strategy	Retail Price	Our Price
Leader Board Tournament	9.95	6.99
Leather Goddess of Phobos	29.95	20.95
Liberator	12.95	8.99
Lurking Horror	29.99	20.06
Macadam Bumper	19.95	13.95
Marble Madness	19.95	13.95
Mean 18 Golf	24.95	16.95
Mercenary Compendium	24.95	16.95
Millipede	14.95	10.49
Mouse Trap	14.95	10.49
Ogre	24.95	16.95
Outcast	9.99	6.99
Out Run (Dec 87)	Phone	Phone
Passenger on the Wind	24.95	16.95
Pawn	24.95	16.95
Perry Mason	19.95	13.95
Phantasie II or III	24.99	16.95
Pinball Factory	24.95	16.95
Pirate of the Barbary Coast	12.95	8.99
Plutos	14.95	10.49
Portal (Soon)	34.99	23.95
Prohibition	19.95	13.95
Ring of Zilfin (Soon)	24.99	16.95
Roadrunner	24.95	16.95
Roadwar 2000	24.99	16.95
Rogue	24.95	16.95
Sentinel	19.95	13.95
Shanghai	24.99	16.95
Shard of Spring (Soon)	24.99	16.95
Shuttle II	24.95	16.95
Sidewalk	19.95	13.95
Silent Service	24.95	16.95
Silicon Dreams	19.95	13.95
Skulldiggery	19.95	13.95
Sky Fox	14.95	10.49
Solomons Keys	24.99	16.95
Space Quest	24.99	16.95
Spitfire 40 (Soon)	19.95	13.95
Star Glider	24.95	16.95
Star Raiders	14.95	10.49
Star Trek (Soon)	19.95	13.95
Stationfall	29.99	20.95
Strike Force Harrier	24.95	16.95
Sub Battle Simulator	24.99	16.95
Super Cycle	24.95	16.95
Super Huey	19.99	13.95
Super Tennis	24.95	16.95
Swooper	19.95	13.95
Tai-Pan	19.95	13.95
Tass Times	24.95	16.95
Terrorpods	24.95	16.95
Tracker	24.95	16.95
Trivia Challenge	19.95	13.95
Trivial Pursuit	19.95	13.95
TT Racer (Soon)	24.95	16.95
Turbo GT	15.95	10.95
Winter Games	24.95	16.95
Winter Warz (Nov 87)	Phone	Phone
Wizards Crown (Soon)	24.99	16.95
World Games	24.95	16.95
Xevious	24.99	16.95

Atari ST Software Business/Languages/Utilities	Retail Price	Our Price
Advanced Art Studio	24.95	16.95
Aegis Animator	79.95	62.95
Art Director	49.95	34.95
Back Pack	49.00	35.95
Bulletin Board System V2	49.95	34.95
CAD-3D Ver. 2.0 + Cybermate	89.95	62.95
Degas Elite	24.95	17.95
Devpac Assembler (Hisoft)	49.95	34.95
Digi Drum	24.95	16.95
Easy Draw 2	79.95	56.95
Easy Draw 2 General Library	29.95	20.95
Easy Draw 2 Technical Library	29.95	20.95
Fast Assembler	19.95	13.95
Fast Basic (Cartridge)	89.90	64.95
Fast Basic (Disc)	44.85	32.95
Film Director	59.95	41.95
First Word Plus	79.95	56.95
Flash (Comms Program)	39.95	27.95
Fleet Street Publisher	115.00	89.95
GFA Basic Interpreter	45.95	32.95
GFA Compiler (Needs Interp.)	45.95	32.95
GFA Draft	99.95	69.95
GFA Vector	34.95	23.95
GST C Compiler	59.95	41.95
Iconix Midi Software Sequencer	249.95	219.95
K Spread 2	79.95	56.95
K-Comm 2	49.95	36.95
K-Data	49.95	36.95
K-Graph 2	49.95	36.95
K-Minstrel	29.95	20.95
K-Roget	49.95	36.95
K-Word 2	59.95	41.95
Lattice C Ver 3.04 (MCC)	99.95	69.95
Lisp (MCC)	149.95	114.95
Macro Assembler (GST)	39.95	27.95
Macro Assembler (MCC)	49.95	36.95
Macro Manager	29.95	20.95
Maps and Legends	29.95	23.95
Modula 2 (Developers)	149.95	114.95
Modula 2 (Standard)	99.95	73.95
Music Studio	29.95	20.95
Paintworks	34.95	23.95
Publishing Partner	159.85	119.95
Sage Accountant	171.35	129.95
Sage Accountant Plus	228.85	169.95
Sage Bookkeeper	113.85	84.95
Saved (Hisoft)	29.95	20.95
Signum!	230.00	169.95
ST Data Manager (These three Programs Integrate)	79.95	46.95
ST SwiftCalc	79.95	56.95
ST Word Writer	79.95	56.95
Start Magazine (Disc) Qrtly	12.95	11.95
STuff	24.95	16.95
ST-Doctor	19.95	13.95
ST-Replay (Sound Sampling)	79.95	56.95
Super Conductor	49.95	36.95
Superbase (Database)	99.95	73.95
Trimbase	89.95	69.95
Timeworks DTP (New)	99.95	74.95
VIP Professional (GEM)	228.85	179.95
Zoomracks 2	69.95	47.95

All prices include VAT at 15% and delivery anywhere on the UK mainland
How to order – Post: Send cheques, P.O. or Visa/Access details to the address below.
Phone: Call 0476 60488 24 Hour Service with your Access/Visa details.
Turtlesoft Dept. AST, 35 Brook Street Courtyard, Grantham, Lincs, NG31 6RY
Subject to availability, all items are despatched within 24 hrs. E&OE
Cheque orders require 7 days clearance. Just because you don't see it — doesn't mean we haven't got it — phone for more details

ACCESS

VISA

ARCADE ACE

Fearless reporter Chris Jenkins strides in to the arcades to struggle with squidoids in the horrifyingly funny *Xenophobe*, then blasts heffalumps and vacuums a few ghouls in *Ghostbusters*

Cornered by the Xenos!

• XENOPHOBE

Bally Midway
20p per game

Xenophobe is so marvellous that I had to be dragged away from the screen screaming and kicking. Based very loosely indeed on the plot of the movie *Aliens*, it combines sublime cartoon-style graphics with non-stop action and black humour.

Each of the maximum of three players has a gun-grip with a trigger and two thumb-buttons. The screen is split into three strips to show each player's point of view. As the game progresses, the players can either stick together to protect each other – in which case the view in each strip is the same – or go their separate ways in to different areas of scenery.

The game is set on a space shuttle infested with the most revolting, slimy, aggressive mutant monsters you could imagine. The characters – blessed with with names such as Dr. Zordirz (geddit?) and Colonel Schikn – bear a marked resemblance to familiar faces from *Star Trek* and initially materialize in the transporter room of the shuttle.

Fighting off the squidoids

As you move through sets of sliding doors into the separate chambers, you will be attacked by a nauseating selection of monsters; scuttling squidoids which try to eat your legs, shell-like creatures which shoot forth strangling tentacles, ray-eyed mutants who melt your brain, and the horrifying, leaping slug-like Xenos themselves.

At each moment labels appear below the screen to show the current function of your two thumb-buttons. This can be to jump, crouch, throw off a monster, pick up a gun, throw a bomb, or use another object. The main trigger is always either Punch (if you have no gun) or Shoot (if you do). An infestation level display appears at regular intervals on the walls of the corridor.

While blasting your way through hordes of slimy mutants is all very well, you will need to use some strategy to clear the shuttle before it self-destructs; using floppy disks, chemicals and pass cards to gain control of the ship's defence system and wipe out aliens faster. Otherwise you will overrun and will be either gnawed to the bone or transported back to the ship when your time runs out.

Xenophobe is outrageously funny, with some real moments of horror as tentacles break through the ceiling, grab you by the throat and try to eat your face off. The accompanying sound effects leave little to the imagination, and the facial expressions of the characters as they meet each new horror are hilarious. Goodness knows how long it would take to master this game; so someone *please* produce a home micro version, before I spend *all* my money.

• GHOSTBUSTERS

Data East
20p per game

It's been a long time coming, but finally *Ghostbusters* has made it to the arcades. To be accurate, this is *The Real Ghostbusters*, based not on the film but on the American cartoon series, as yet unseen on this side of the Atlantic.

The good news is that the game is nothing like the Activision home computer title, which was well-received in its day but is only average by today's standards. The coin-op is a fast-moving shoot-em-up with plenty of laughs along the way.

Featuring convincingly synthesised music from the film, and a selection of ear-

Winning through to level 2

Leaving the Ghosthouse

bending sound effects, *Ghostbusters* caters for up to three players at at a time. The three control handles and sets of fire buttons are arranged in a semi-circle, and extra players can join in at any stage of the game.

The rules are pretty simple; move your nicely-animated Ghostbuster across the roof tops, fighting your way through hordes of attacking monsters. If it moves blast it, and if it doesn't move, blast it anyway to be on the safe side. Your rapid-fire energy gun will blow away most of the ghoulies you encounter; you then use your sizzling beam weapon to vacuum up the resulting spectres in to your back pack. Go mad with either weapon, though, and your energy will fall to a fatally low level.

It's almost impossible to get through the early levels without a little teamplay; ideally, two players shooting monsters while the other vacuums them up. You'd have to take turns, of course, since the more ghosts you capture, the higher your score.

The monsters are great; winged balloons with flickering tongues, elephantine blobs, and cowled and fire-hurling warlocks. To help you out there are several icons to pick up; a Ghostbuster logo to extend your firepower, a globe which gives you a temporary shield, a battery to boost your backpack power. Beware of the skull which appears when you kill certain monsters; this will dangerously drain your energy on contact

Many of the special bonus icons are surrounded by bobbing spikes. It takes precise timing to manoeuvre through these while fighting off attacks, but if you manage it you get the chance to capture the Green Ghost – a fast-moving spook which scores you a big bonus. Watch out, though, for the time limit on each level and your continuously falling energy reserves.

Ghostbusters is enormous fun; in many ways it's a noisier and flashier version of *Gauntlet*. While *Ghostbusters* doesn't have the maze element which made *Gauntlet* so compulsive – the next level is always accessed across the narrow footbridge at the top of the screen – there's the same sense of frantic action and the demand for co-operative play. Should be a hit – especially if the rumoured *Ghostbusters 2* movie really does make it to the screens. ●

Blasting the heffalumps

FREE SOFTWARE!

Every month there's a fabulous software prize for the best arcade tip printed in Tricks 'n' Tactics. Last month Deano Schofield picked up a copy of *Starglider* in return for his *Double Dragon* tips; next month it could be you – but only if you put pen to paper and get scribbling. Send the goods – stating which computer you own – to:

Arcade Tips, ACE, 4 Queen Street, Bath, BA1 1EJ

MATCH DAY II

"AT LAST"

A WORTHY SUCCESSOR TO THE EVER POPULAR MATCH DAY FOOTBALL SIMULATION – A GAME WHICH HAS REMAINED IN THE READERS CHARTS FOR 3 YEARS!

Written once again by Jon Ritman this NEW Match Day is the result of all the customer feedback and advice on how to create the pinnacle in computer soccer.

Pit yourself against the CPU or with 2 players – full league or cup competition with unique code – save facility.

Jump, head, volley and kick (using the kick meter) to move the ball from player to player with automatic deadball set ups and goalkeeper control.

DIAMOND DEFLECTION SYSTEM™ ensures realistic ball ricochet and the action comes with full music and sound FX.

If you want the very best in football for your micro then there's only one choice... **MATCH DAY II** with multi-menu system makes the home computer come alive.

SPECTRUM **7.95**
COMMODORE **8.95**
AMSTRAD

ocean®

Ocean House · 6 Central Street · Manchester · M2 5NS · Tel: 061-832 6633 · Telex: 669977

Play the NEMESIS sequel...

SALAMANDER

AMSTRAD CASSETTE	£ 8.95
AMSTRAD DISC	£14.95
COMMODORE CASSETTE	£ 8.95
COMMODORE DISC	£14.95
SPECTRUM CASSETTE	£ 7.95

If you've ever had nightmares about falling helplessly into the depths of space, then imagine that space dominated by a tyrannical creature whose evil surpasses even your deadliest dreams.

The Salamander.
The subjects of its cruel regime await desperately to be freed from the horrors of the Salamander's slavery.

You can free these unfortunate creatures only by annihilating this force of evil and destruction that lurks so monstrously over the edge of infinity.

But if you don't . . .

KONAMI

Another gripping Arcade Conversion

DISTRIBUTED BY
N.M.C. LTD., 2 IFFLEY ROAD,
LONDON W6 0PA. TEL: 01-846 9701
TELEX: 94013766 NMCL G. FAX: 01-741 2283

For subscription details please send a S.A.E. to:
KONAMI SOFTWARE CLUB
Bank Building, Bank Street, Newton Abbot, Devon TQ12 2JL.

KONAMI HELPLINE
0626 56789

KEYBOARD CAVALCADE

..So you want to make music with your computer, and you know that the best way to do it is with a MIDI keyboard. Where do you go from there? Chris Jenkins checks out the competition and conducts a few auditions.

OVER the last couple of issues we've introduced the concept of MIDI, the Musical Instrument Digital Interface standard which allows your computer to control electronic musical instruments and effects. We've explained something about the necessary interfaces and music software packages you'll need, and mentioned some of the suitable instruments you can buy. This complete list will give you some further ideas about which MIDI keyboard to choose.

We've set a price limit of £600, which allows us to include some pretty impressive instruments without going over the top. First, though, a few notes about some of the jargon you're likely to encounter in your search for the perfect music set-up.

The two main classes of MIDI instruments are **synthesisers** and **home keyboards**. While the technology involved and the sounds produced are often very much the same, the two types differ very much in the sort of facilities offered.

Home keyboards are intended to be an end in themselves: for use entertaining yourself and the family. They normally have functions such as drum machines, single-finger chords, and auto-accompaniment built in. They often feature battery power; and they almost always include built-in speakers, so you don't need to connect them to an amplifier or hi-fi to hear them.

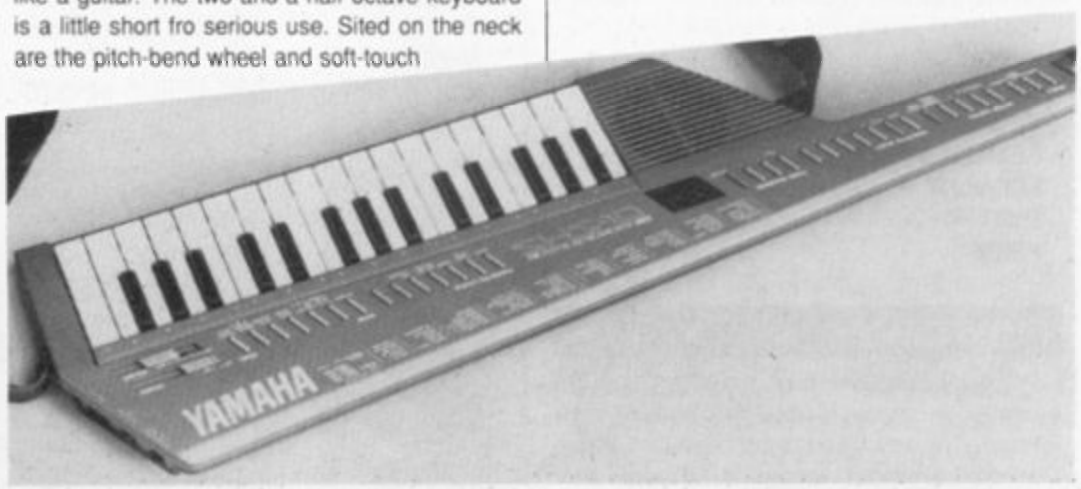
Usually you are given a small selection of preset sounds on a home keyboard, which can be altered in some cases but not totally changed. True synths, on the other hand, almost never include built-in drum machines, single-finger chords or other accompaniment features. They do, though, have a large selection of sounds which are totally reprogrammable using a list of 'sound parameters'. Programming sounds is an arcane art which some love, others hate, and many simply choose to ignore.

The simpler choice, then, is to buy an all-in-one home keyboard. If you have any real commercial musical ambitions, though, go for a more flexible synthesiser; but be prepared to find yourself almost inevitably going on to spend money on a selection of drum machines, echo units, synchronisers, mixers, patch bays, multi-track recorders and the whole technological Spaghetti Junction of modern electronic recording.

Yamaha SHS-10 ★★★★

Latest and zaniest MIDI keyboard on the market, the SHS-10 is slung over the shoulder and played like a guitar. The two-and-a-half octave keyboard is a little short fro serious use. Sited on the neck are the pitch-bend wheel and soft-touch controls for rhythms, autochords, effects, sequencer and the demo tune; Wham!'s 'Last Christmas'. Nice FM sounds, but a pity that there's no MIDI IN.

KYBD	32 miniature, F-C
SOUNDS	25 FM presets, 8 note
DRUMS	25 FM
FEATURES	ABC, chord sequencer etc
SPEAKER	2 watt
MIDI	OUT only
PRICE	£149.99



Technical terms

A few helpful definitions. FM is *Frequency Modulation*, the digital proces by which Yamaha synthesisers produce sounds. Many other manufacturers have now licensed the FM process for use in their own synths. ABC is *Auto-Bass-Chord*, and SFC *Single-Finger-Chord*, both accompaniment features which allow you to play complex parts with single keys. Many manufacturers invent their own fancy names, but the principles are usually the same. PCM is *Pulse Code Modulation*, a process used to produce realistic drum and instrument sounds by digitally re-synthesising the waveform of a sound sample. Again, different manufacturers use different names for the same principle. PD is *Phase Distortion*, Casio's simpler version of Yamaha's FM.

We're leaving out of this feature some excellent keyboardless MIDI synth modules – such as the Roland MT-32 (reviewed last month), Yamaha TX-8IZ and Orla DSE-12/24 – since as they're not much good without a controlling keyboard you're not likely to buy one before anything else. Also out are cheap sampling keyboards such as Casio's SK series, which don't have MIDI; and many useful discontinued or obsolete instruments such as the Korg EX-800 Expander and Poly-800 II synth, and the Roland Juno 6/60, which can now be picked up for a couple of hundred pounds.

Ratings

The **KYBD** category lists the size, number and span of the keys; **SOUNDS**, the number of preset/programmable sounds available, and the number of voices which can be played simultaneously (the 'polyphony'). **DRUMS**, the number of rhythm patterns available; **FEATURES**, the accompaniment features such as ABC, SFC or note sequence recorders; **SPEAKER**, the number and power of the built-in sound source (if there are two, then the keyboard usually has a stereo chorusing feature).

There are three possible **MIDI** sockets, IN, OUT, and (not 'shake-it-all-about'), THRU, which passes MIDI data unchanged to another instrument, allowing several to be chained together. **PRICE** is RRP including VAT. **RATING** gives an overall verdict with the more stars displayed the better. This takes everything including price into account. Even if you have no keyboard skills worth speaking of, many of these units will enable you to produce some impressive sounds and, in combination with MIDI, can open up a whole new world of self-expression – not to mention a lot of fun.

Farfisa FK 58 ★★

One of the many Italian keyboard manufacturers, Farfisa doesn't quite seem to have got the hang of the modern keyboard business (but check out their TK80, a later model reviewed below that promises well for the future). The MIDI features of the FK58 only work on MIDI channel 1, and for some reason it includes an RS-232 port which appears totally useless. Conventional organ-type sounds rather than FM.

KYBD	Full size, 61 notes C-C
SOUNDS	6 preset analogue, 8-note
DRUMS	8
FEATURES	SFC, Arpeggio, Trio
SPEAKER	2x4w
MIDI	IN, OUT, RS-232
PRICE	£249

Viscount KB200 ★★★★

Notable for its full-sized keyboard, the KB200 produces some full analogue sounds and excellent preset and programmable PCM rhythms. It also features a very powerful speaker, but bear in mind that it's mains powered only.

KYBD	Full-size, 61 notes C-C
SOUNDS	10 preset, 8-note
DRUMS	12 PCM, plusprogrammable
FEATURES	Autobass, SFC, Arpeggio etc
SPEAKER	10W
MIDI	IN,OUT
PRICE	£295

Casio CZ-101 ★★★★★

Officially discontinued now, the CZ-101 is still available in many shops and shouldn't be ignored. The first Casio to be based on Phase Distortion, a simpler version of Yamaha's Frequency Modulation, the CZ-101 is capable of creating some excellent realistic and synthesised sounds. Multi-timbral over MIDI (it plays four voices monophonically at the same time) the CZ-101 is fairly easy to program. The big beef is that there are very few on board sounds, and extra RAM cartridges are ridiculously expensive and hard to get. Like the Yamaha DX-100, the CZ-101 has miniature keys, and if you can't stand these you should look out for one of the larger CZ synths.

KYBD	Miniature 49-note C-C
SOUNDS	PD, 16 prese, 16 programmable, more on RAM
DRUMS	NONE
FEATURES	NONE
SPEAKER	NONE
MIDI	IN,OUT, THRU
PRICE	£299

Casio CZ-230-S ★★★★★★

A corker. Using stunning preset sounds based on Casio's impressive Phase Distortion synthesis, the 230-S also features heavy PCM sampled drum patterns, and such professional touches as a pitch bend wheel, portamento (glide between notes) and full MIDI. It's multi-timbral over MIDI (playing up to four different sounds at once under control of a sequencer), and there are also four programmable memories, though you'll need a software editing package to use them. Basically a preset version of the famous CZ-101, and dead brilliant.

KYBD	miniature, 49 C-C
SOUNDS	100 PD preset, 4 programmable, 8-note
DRUMS	20 PCM, preset/programmable
FEATURES	Rhythm chaining
SPEAKER	3W
MIDI	IN, OUT, THRU (Multi-timbral)
PRICE	£345

Viscount KB210 ★★★

One of many keyboards featuring "teach-yourself-music" facilities. The 210 accepts ROM cartridges containing preset tunes. LEDs above the keyboard light up as the tunes play, waiting for you to hit the right note before continuing. Programmable PCM rhythms and full-size keys add to the 210's attractions for novices.

KYBD	Full-size, 61 note C-C
SOUNDS	10, 8-note
DRUMS	12
FEATURES	Autobass, SFC, memory, arpeggio etc
SPEAKER	10W
MIDI	IN, OUT
PRICE	£345

Casio CPS-101 ★★★★★

Bet this one caught you out. It's a digital piano, the cheapest around. The CPS-101 is touch-responsive, playing louder or softer according to how hard you hit the keys. Touch sensitive keyboards are usually weigh in at much higher price tags, so this model is worth looking at for that feature alone. Its ten presets allow you to choose acoustic, electric, honky-tonk and other types of sounds – but does it sound like a piano? Well, it's a tenth the price of a concert grand...

KYBD	Full-size, 61 note C-C
SOUNDS	10 preset, 8-note
DRUMS	NONE
FEATURES	Note sequencer
SPEAKER	2x 5W
MIDI	IN, OUT, THRU
PRICE	£349

Casio HT-700 ★★★★

Using a much simplified version of PD synthesis, the HT-700 hits a nice balance between preset and programmable, home keyboard and synthesiser.

Features include RAM cards for extra voices and song storage,32 digital waveforms, five LFO waveforms, programmable filter and amplituide envelopes and selectable MIDI channedl. Worth seeing, if a touch over-priced. Hohner also produce this model, badgeD as the **Hohner KS49** - but it'll set you back an extra £20.

KYBD	Miniature, 49-note C-C
SOUNDS	20 upr, 10 lwr, editable, 8-note
DRUMS	PCM
FEATURES	SFC,Chordsequencer, autobass, harmonise etc
SPEAKER	2x1w
MIDI	IN, OUT
PRICE	£349

Casio HZ-600 ★★★★

Getting confused by all these Casio's yet? I know I am. This one is brand new, another preset/programmable hybrid with simplified PD-type sounds. Features include RAM cards for extra voices and song storage, 32 digital waveforms, five LFO waveforms, programmable filter and amplitude envelopes and selectable MIDI channel. Worth seeing, if a touch over-priced.

KYBD	Full-size, 61 notes C-C
SOUNDS	20 upper, 10 lower variable, 8-note
DRUMS	NONE
SPEAKER	NONE
MIDI	IN,OUT, THRU
PRICE	£349

Casio CZ 230 S

Casio CT-630 ★★★★

A big crunchy keyboard, this one, with lots of sounds, ryhthms, clever gimmicks and MIDI facilities.

Some original sounds like Typhoon, and Plunk Extend along with the standard Jazz Organs and Marimbas; nice to hear modern electronic sounds along with the other drums, too. There are three MIDI modes which split the keyboard into different zones, but as it only transmits on channel one, this isn't as useful as it sounds. Once again, there's a Hohner lookalike – the **PK100.**

KYBD	Full-size, 61 note C-C
SOUNDS	10, 8-note
DRUMS	20 PCM
FEATURES	SFC, Autoharmonise, keysplit etc.
SPEAKER	2x 2W
MIDI	IN, OUT, THRU
PRICE	£379

Yamaha DX100 ★★★★★★

An incredible package, the DX-10 synth is excellent value and produces great sounds, including howling guitars, wicked basses, clanging pianos,

zooming synths and bright strings.

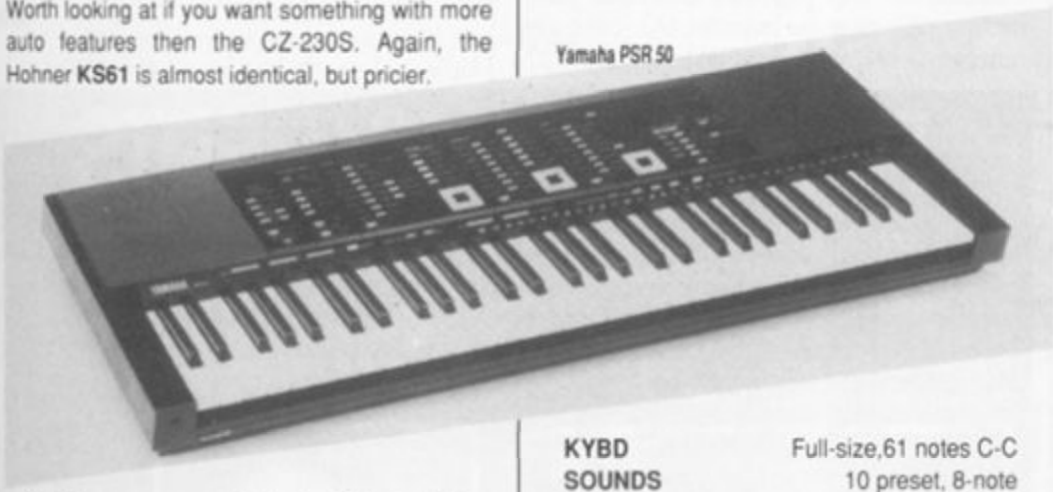
Fully-programmable, 'four-operator' FM technologh – like that of the world famous DX7, but cut down a little – combines with protability, full MIDI spec and a massive 192 preset sounds, which can be transferred to and edited in the 24 programmable memories.

Pitch bend and modulation wheel, breath controller jack, LCD editing display, and a host of other features make this the choice of the dedicated muso on a budget. If you can't stand the mini keys, check out the DX27 – 61 full-size keys plus an almost identical spec – but £150 more!

KYBD	Miniature, 49 notes C-C
SOUNDS	192 preset, programmable, 8-note
DRUMS	NONE
FEATURES	NONE
SPEAKER	NONE
MIDI	IN, OUT, THRU
PRICE	£419

Casio HT-3000 ★★★★★

Like the others in the HT series, a good cross between progrmmability and presets. Clean, full sounds using 32 Waveforms, five LFO waveforms and programmable filter and amplitude envelopes, adjusted using a rotary dial. Lots of auto features, plus splittable MIDI inputs to drive the melody, chords bass and rhythms seperately. Worth looking at if you want something with more auto features then the CZ-230S. Again, the Hohner **KS61** is almost identical, but pricier.



Yamaha PSR 50

KYBD	Full-size, 61 note C-C
SOUNDS	20 upr, 10 lwr, more on RAM cards, 8-note
DRUMS	20 PCM, more on RAM cards
FEATURES	SFC, autoharmonise/bass, etc.
SPEAKER	2x2W
MIDI	IN, OUT, THRU
PRICE	£425

Elka EH105 ★★★★

Elka has only recently broken away from the organ-only end of the market, and the EH105 shows some promise for the future. Good preset noises similar to Yamaha's FM, with four programmable memories featuring parameters for waveshape, timbre, and pitch and filter envelopes. A very good selection of seventeen PCM drum sounds in the programmable rhythm section, and splittable MIDI channels.

KYBD	Full-size, 61 notes C-C
SOUNDS	15 preset, 4 programmable, 8-note
DRUMS	PCM, 18 preset 4 programmable
FEATURES	SFC, chord memory, solo chord etc
SPEAKER	2x 3w
MIDI	IN,OUT
PRICE	£450

Yamaha PSR-50 ★★★★★★

The cheapest Yamaha MIDI home keyboard is an impressive beast, featuring excellent FM voices and PCM drums. MIDI implementation includes selectable channel in/out, and even synchronisation by MIDI clock pulse to the drum section, which few home keyboards can boast. Not too many extraneous frills, either; overall possibily the best home keyboard at the price.

KYBD	Full-size, 49 keys C-C
SOUNDS	FM, 16 preset
DRUMS	16 PCM
FEATURES	SFC, autobass, memory etc.
SPEAKER	2x 2.5W
MIDI	IN, OUT
PRICE	£479

Viscount KB 550 ★★★★

Realistic digitally, resynthesised samples form the basis for the KB 550's sounds, so it's more interesting to play than many home keyboards. MIDI implementation includes OMNI on/off, and internal or external clock control of the accompaniment features. A good keyboard, then, but a little expensive.

KYBD	Full-size,61 notes C-C
SOUNDS	10 preset, 8-note
DRUMS	12 PCM
FEATURES	SFC, autochord, memory etc
SPEAKER	2x 5w
MIDI	IN, OUT
PRICE	£495

Farfisa TK80 ★★★★★

Lots of interesting features here. The preset sounds are digitally re-synthesised from samples, and there are 'special sounds' in which a percussive and sustained tone are layered together. You can program your own PCM rhythms, and the MIDI implementation includes variable channels for transmit and receive, and splittable sections. It also responds to MIDI Program Change and Song Pointer information, which is unusual. Check it out.

KYBD	Full-size, 61 notes C-C
SOUNDS	30 preset
DRUMS	16 PCM
FEATURES	Autochord, memorychord, autosolo, trio etc
SPEAKER	2x 4W
MIDI	IN,OUT
PRICE	£499

Gem DSK-6 ★★★★

Realistic Sample Wave Processing gives good effects and you can layer two of them together to produce thicker sounds. There are also manual play buttons for the separate drum sounds, good MIDI implementation and excellent speakers.

KYBD	Full-size, 49-notes C-C
SOUNDS	16 preset, 8-note
DRUMS	14 PCM
FEATURES	ABC, harmony, enchanced accompaniment
SPEAKER	2x 5W
MIDI	IN, OUT
PRICE	£555

Kawai MK-10 ★★★★★★

The business. Based on Kawai's Digital Waveform Synthesis, the MK-10 sounds great and has some awesome features; velocity response (hit harder and it plays louder), pitch bend wheel, keysplit, stereo rhythms, full MIDI with different channels for the bass, solo, poly, counter melody and drums, portamento, two massive speakers, and you can even play the drum sounds from the keyboard. A complete MIDI studio in one box.

KYBD	Full-size, 61 notes C-C, velocity sensitive
SOUNDS	18 preset, 8-note
DRUMS	16 PCM
FEATURES	SFC, memory, dual, trio,etc
SPEAKER	2x 10W
MIDI	IN, OUT, THRU
PRICE	£595

Viscount KB-880 ★★★★★

Digitally re-synthesised sampled sounds here again, but this time you can combine waveforms, envelopes and modulations to produce 10,000 combinations. Very powerful accompaniment and sequencer options make the KB-880 an impressive if expensive choice.

KYBD	Full-size, 61 notes C-C
SOUNDS	10 preset, programmable, 8-note
DRUMS	14 PCM
FEATURES	SFC, chordmemory, autoplay, sequencer
SPEAKER	2x 8W
MIDI	IN,OUT
PRICE	£595

Yamaha PSR-60 ★★★★★

Similar to the PSR-50, but features the Music Programmer, a sequencer which allows you to record chord, bass and solo tunes separately, then play them back together with the other accompaniment features. MIDI clock synchronisation to external insturments is supported,and you can playthe PCM drum sounds from the keyboard. Plenty to get your teeth into.

KYBD	Full-size, 61 keys C-C
SOUNDS	16 variable FM
DRUMS	16 PCM
FEATURES	ABC, SFCM, duet, rhythm vary, etc
SPEAKER	2x 2.5 w
MIDI	IN,OUT
PRICE	£599

MIDI MADE SIMPLE

A few points remain in our discussion of the MIDI (Musical Instrument Digital Interface) system, which as you should all know by now is the standard communication system for processor-controlled musical instruments.

Everything from synthesisers, keyboards, samplers and electronic pianos to effects, digital guitars, wind instruments, drum machines and sequencers can be processor-controlled, and thus MIDI-equipped these days. In the case of the last two categories we're talking about units which make things happen over a period of time – playing musical notes or drum beats in the pre-programmed patterns at a speed decided by the user.

Using several such units together means locking their running speeds together, since they're bound to drift apart even if you set their displays to the same BPM (Beats Per Minute) value. MIDI includes several timing codes to help you do this; the most common is the simple Timing Clock (which has been affected by changes in the MIDI standard since its launch; we'll concentrate on the current state of affairs, but point out that early MIDI instuments may need an update chip to make them compatible with the latest models).

If a sequencer or drum machine is running, it sends (or receives if it's slaved to another unit) the **MIDI TIMING CLOCK** (code 248) at a rate of 24 times per quarter note; these clocks are sent *in between* other codes such as **NOTE ON** and **NOTE OFF**. Being transistor-level binary codes, they're totally different from the Sync 24 clock pulses used by older non-MIDI drum machines, although you can buy interface units to convert one to the other.

Other Timing Codes are 250 (start), 251 (continue) and 252 (stop), the operation of which are fairly obvious. You can refer back to Issue 2, page 34 for a complete list of MIDI status messages and their respective codes.

Recently moves have been made to make MIDI compatible with SMPTE, the Society of Motion Picture and Television Engineers' time code system. SMPTE codes, which unlike MIDI can be recorded on tape, are long binary streams containing a time in hours, minutes, seconds and frames, the number of frames per second depending on the television standard being used. This means that there are four different kinds of SMPTE worldwide.

When SMPTE timings are expressed as MIDI codes they're known as MSMPTE (MIDI-SMPTE), or more popularly, at MTC (MIDI Time Code). Very few MIDI instruments respond to MTC as yet, but it's the coming thing, and will mean that you can lock your MIDI drum machine or sequencer to a film or video and have it start at exactly the right part of the tune wherever you start playing back the pictures.

In control

Enough of time codes. The other main area of MIDI we haven't covered is Controllers – the knobs and pedals on your synth which give expression to your playing.

Pitch benders, footswitches, footpedals and breath controllers are all MIDI Controllers. MIDI assigns plenty of codes for such purposes but doesn't specify exactly how they should be used, except in the case of the three-byte code 1011AAAA, 0BBBBBBB, 0CCCCCCC. This indicates Controller Information plus channel number (A), controller number 0-127, and controller value 0-127. When B=0 we're talking about the synth's Pitch Bender, so obviously MIDI can bend the pitch of any synth on any channel from 0-127 units.

Controller 0 is always the pitch bender, but other knobs or sliders ('continuous controllers') can be assigned to any controller number 1-31, and on/off switches can be assigned to 64-95.

Control by velocity or after-touch on the keyboard, which could open or close a filter, change a Modulation Index or increase volume or vibrato depth, is dealt with under different channel information categories; that is, there are different codes for each category but every one can be assigned a MIDI channel so only the correct synth in a multi-synth setup is affected.

Lastly, there's a MIDI Sample Data Dump standard in the process of development; it's hardly complete yet, since everybody's samplers work in different ways, but most samplers will now allow you to exchange sample waveshapes via MIDI if not all the details of loop points, filtering and so on. Some samplers run Sample Data Dumps at double the normal speed for MIDI data transfer; it may be that all of MIDI will be speeded up to this rate before long, but the established lower rate will probably not be completely superceded.

●MJ

PANEL OF EXPERTS

Baffled by MIDI? Want to know more but don't know where to turn? Can't get your DX7 to talk to your Watanabe CSD-Liquidator? ACE proudly presents its Panel of MIDI Experts. Each month the panel will respond to readers' MIDI problems, whether these be from seasoned MIDI musicians or those of us who think that a status message is a letter from Princess Di. The panel are ready to leap into action for the very next issue of ACE, so get those queries rolling in NOW!

Mark Jenkins

Previously Music Editor of Electronics and Music Maker, Assistant Editor of Electronic Soundmaker, and Technical Editor of Melody Maker. Now a regular contributor to ACE. In his spare time (about ten minutes every fortnight) Mark runs a small independent label for instrumental synthesiser music called AMP Records, and operates a 16-track studio, Unicorn, with a battery of MIDI synthesisers and samplers plus a collection of antique keyboards.

John Robinson

John's at the raw end of the market – he uses a Spectrum with a RAM Machine interface and a real steptime sequencer to control a Casio CZ230S and a Yamaha PS6100 keyboard through MIDI. John spends his spare time writing routines in machine code and BASIC for MIDI control applications and also has a Cheetah sound sampler.

Michael Downey

Classically trained on violin and viola, Michael taught himself how to play guitar and keyboards, and later set up a recording studio in the Midlands which he ran for six years. He then left 'to pursue the computer side of things' and is now the ST software specialist at Argent's in Denmark Street, London.

Howard Ingram

We're not exclusively concerned with MIDI in the music section of ACE. Howard's been involved with music for a number of years, during whh time he's built up a small 'home studio' in his attic u s i n g *out* MIDI. He'll be answering questions and suggesting alternatives for those readers who have not yet become involved in MIDI, or

Many thanks to all of you who wrote in. From time to time we'll be 'retiring' Panel Members to give other knowledgeable readers a chance to serve their turn. If you'd like to be considered, drop Steve Cooke a line addressed to: ACE MIDI PANEL, 4 Queen Street, BATH,BA1 1EJ.

ASHCOM

ATARI HARDWARE

520ST-FM Keyboard / Mouse / .5meg drive	259.95
1040ST-F Keyboard / Mouse / 1 meg drive	439.95
1040ST-F Keyboard / Mouse / 1 meg drive / mono monitor	519.95
1040ST-F Keyboard / Mouse / 1 meg drive / colour monitor	799.95
Mega ST 2 meg Ram / Mouse / mono monitor	854.95

Phone or write for prices of peripherals

COMMODORE HARDWARE

Amiga A500 + Modulator + Offer pack	435.95
A1081 colour monitor	349.95
A1010 disc drive	249.95

Phone or write for prices of peripherals not seen

All hardware fully guaranteed

3.5" discs DSDD guaranteed (packed in 10)	12.00
25 bulk packed 3.5 inch discs DSDD guaranteed	25.00

ATARI SOFTWARE

Phone for details of special software pack

	RRP	Our Price
Fast Basic	89.90	69.50
Gauntlet	24.95	18.50
Barbarian	24.95	18.50
First Word Plus	79.95	62.95
GST C Compiler	59.95	49.95
Knight Orc	19.95	15.40
Wordwriter ST	79.95	62.95

AMIGA SOFTWARE

Faery Tale Adventure	49.95	38.50
Balance of Power	29.95	22.50
Fire Power (New)	24.95	18.50
Delux Paint II	69.95	54.95
Space Battle	9.95	8.50

ST OFFER PACK

	Total RRP	Offer Price
Wordwriter ST Data Manager ST Swift CALC ST Softline	**259.00**	**145.00**

New software and hardware is constantly being added to our list at massive discounts so if you do not see what you want call us for latest products and prices.

All prices include VAT @ 15% and P&P on UK Mainland

Send SAE for full price list

All items are dispatched within 24 hours, subject to availability

To order send cheques / PO or Visa / Access details to the address below or call us on (0530) 411485 with your credit card details

ASHCOM, 10 The Green, Ashby de la Zouch, Leicestershire, LE6 5JU

From KJC Games, Britain's leading PBM CO

AN OFFER YOU CAN'T REFUSE!

ABSOLUTELY FREE

TRY A FREE TRIAL IN THE WORLD'S MOST POPULAR PLAY-BY-MAIL GAME.

IT'S A CRIME!

All you need to do is send us your name and address and we'll send you a rulebook, start position in a new game, and credit for your first two moves. If you enjoy the game, and we think you will, you can continue playing It's a Crime! for the incredibly low price of only 75p a turn.

THE SETTING

The game is set in New York City in the late 1990's. You role-play the part of a gangleader who controls a group of misguided youths. The city has severley deteriorated. The brave citizens who remain are now in a life and death struggle with the ever increasing number of drug-crazed street gangs. The New York Police Department is severley undermanned.

Your main goal is to become a very powerful gang. This is measured by building your gang's turf into one of the largest and by becoming one of the richest, toughest, and most notorious gangs in the city. This will allow you to enter the MOB, and maybe later, become the Godfather.

On a typical turn you could send your Pros, Punks and 'Cruits out to take over a couple of city blocks and ambush an enemy gang, rob or firebomb a building, buy and sell drugs, have yourselves a party, terrorize the residents, and much more.

SEND YOUR NAME AND ADDRESS TODAY FOR YOUR FREE TRIAL OF **IT'S A CRIME!** THE WORLD'S MOST POPULAR PLAY-BY-MAIL.

WRITE TO:

KJC GAMES,
PO BOX 11, CLEVELEYS, BLACKPOOL, LANCS FY5 2UL

NOW AVAILABLE – the official Spectrum Upgrade!

Turn your Spectrum into a Spectrum + for just £24.95

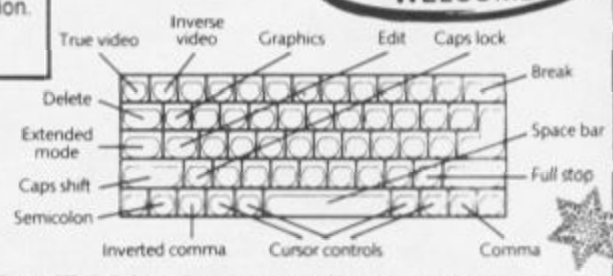
Makes a great Christmas present

ORDER NOW!

- Professional full-size keyboard – includes 17 extra keys.
- Responsive typewriter-style action.
- Accepts all current Spectrum software and peripherals.

+ £1.50 p + p

ACCESS WELCOME



The official Spectrum Upgrade. Naturally your upgraded computer will accept all the peripherals in your Sinclair system-Interface 1, Microdrives and so on - as well as all Spectrum software. Just as important, new Spectrum software and peripherals will be designed with the Spectrum + in mind. So the Sinclair upgrade adds **stylish looks, new capabilities** ... and new potential for the future.

Here's some exciting news for Spectrum owners ...
the official Spectrum Upgrade Kit. The Upgrade has everything you need to turn your Spectrum into the stylish new Spectrum +. You don't even need an understanding of electronics, just the ability to solder a few wires together! The leaflet in the kit gives clear, step by step instructions. If you're not sure about doing it yourself, don't worry. Simply return your 48K Spectrum to us and for **£31.90** + £1 50 p + p we'll upgrade it for you.

The bigger, better Spectrum keyboard
The Spectrum + measures 12½" × 6". It has a large typewriter-style keyboard, with hard, moulded keys. You'll find the new keyboard has a smooth, positive action – ideal for touch-typing, word processing, simulation programs, and extended programming sessions. Two retractable legs give a **perfect typing position**. There are 58 keys in all, including 17 new keys. Programmers will be pleased to see dedicated punctuation keys, a space bar, and separate shift keys for graphics and extended modes. And a reset button allows you to clear a program from your computer's memory without disconnecting the power supply.

HOW TO ORDER BY MAIL

1. If you require us to do the upgrade for you please send **£31.90** + £1.50 p + p. Total **£33.40.**
2. Should you require the do-it-yourself kit just send **£24.95** + £1.50 p + p. Total **£26.45.**
3. If you require your Spectrum to be repaired and upgraded to a Spectrum Plus we have a special offer price of just **£50.00** complete.

Orders can be placed by using your Access Card on the numbers below.

VideoVault Ltd.

Upgrade Dept. 140 High Street West, Glossop, Derbyshire SK13 8HJ
Tel: 04574-66555/67761 Head Office & access orders.
Manchester 061-236 0376 while you wait repair centre only.

© Copyright Videovault Ltd. No. 789003

THE ACTION—SIMULATION

AIRBORNE RANGER™

You are one of the elite . . . parachuting alone behind enemy lines. The enemy controls the terrain, hidden in bunkers and machine gun nests . . .you may be surrounded. The action is fierce as you control one soldier's battle against overwhelming odds. You'll need skill and strategy to outmanoeuvre your enemy, plus courage and some luck to make your escape. Airborne Ranger is an exciting fast-paced simulation with 12 desperate missions in 3 different regions of the world. The possibilities are endless!

AIRBORNE RANGER. A challenging combination of danger and suspense. Available for the Commodore 64/128K Cassette £14.95 Disk £19.95.

MICROPROSE
SIMULATION • SOFTWARE

Please send _____ copy/ies of Airborne Ranger CBM 64/128 ☐ Cassette £14.95 ☐ Disk £19.95 ☐ Further details.

Name (block capitals) _____ Address _____

_____ Post Code _____

I enclose £ _____ including 55p P+P. Cheques payable to MicroProse Software Ltd,

or debit my Access/Visa card. Expiry date _____ No. ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

PILGRIM

What a Christmas! The Pilgrim joins up with the White Wizard to take you on a red-hot romp through *Plundered Hearts* (is bondage back in fashion?); *Nord and Bert Couldn't Make Head nor Tail of It* (but can you?); *Beyond Zork* (FAR beyond Zork!); Pat's Patch; Shades Diary; and just about everything else you always wanted, except the brushings from Ol' Whitey's beard. So drop that rod and staff and read on...

PLUNDERED HEARTS

Do INFOCOM have the key to your heart?

>....You are intensely aware of the strength of his hard seaworn body, of the deep sea-blue of his eyes. And then his mouth is on yours, lips parted, demanding, and you arch into his kiss.

SO begins Infocom's adventure into the realms of romantic fiction – the panting, yearning (but ever so proper) and, above all, feminine world of Mills and Boon. Will the challenge of the game make a man of you? Or, if you're already made of puppy dogs' tails, will abandoning the trousers for a cotton frock give you a kick worth nearly £30?

Hardly surprising, really, this excursion into Barbara Cartland territory. Infocom's last release, *Lurking Horror*, was a straight-forward derivative of the horror fiction of H.P.Lovecraft and others, and *Plundered Hearts* simply continues this search for new sources of inspiration that can bring fresh blood to the adventure scene. There seems little doubt that the boys and girls at Infocom are trying very hard to come up with new slants for us players (take a look at both *Nord and Bert* and *Beyond Zork* later in this issue if you don't believe me), so the question in this case is not only whether we have a good new game, but whether we have a good new genre.

As an adventure, *Plundered Hearts* can be compared with *Hitchhikers*, in that there is relatively little exploring to be done. The first half of the game involves very few locations as you find yourself on board ship, travelling to St Sinistra after receiving a letter from the local big-wig, Jean Lafond, to the effect that your father is mortally ill.

En route, the boat you are travelling on is captured by pirates, the captain of whom, Nicholas Jamison, professes to be both a gentleman and a friend of your father's. He is also devilishly attractive, but more of that later. Throughout this early stage of the game you will have been able to type WAIT (or Z) continuously without much ill effect, and even if you adopt a more active strategy you will discover only three locations, two of which are beds (in which you are alone, I might add).

Finally, however, the pirate ship arrives at St Sinistra and Capn Nick pops off to visit Lafond and chop him into pieces. You now have a chance to explore the vessel and solve a couple of puzzles. Only one of these presents much difficulty, and the Pilg judges it to be something of a cheek because it is time-based – i.e. the solution to it appears out of thin air only after you have made a certain number of moves.

Having escaped from the ship (and taken care to have everything with you), you make for Lafond's residence to find your father, who you now have good reason to believe is a prisoner there. You are also, by this stage, more or less convinced that Capn Nick is a merry old soul, a point he soon tries to drive home with much labial contact. There's a ball going on, which you manage to penetrate, and the old devil can't keep his hands off you. Neither can the other old devil

EXPERIENCE THE REAL THING!

WIN A WINTER OLYMPIC HOLIDAY WORTH MORE THAN £2000

WINTER OLYMPIAD'88

Winter Olympiad'88 is undoubtedly the best winter sports simulation to date. It features the classic winter olympic events; Ski Slalom, Giant Slalom, Two man bob, Ski-Jump, Biathalon and Speed Skating. These have been depicted in a way not seen on any home computer before. The result is a phenomenally realistic and spell-binding game.

Available on the following format

- CBM64, BBC/ELECTRON, ATARI **£9.95**
- SPECTRUM, AMSTRAD, C16/+4 **£7.95**
- DISK - BBC **£14.95**
- MASTER COMPACT **£14.9**
- ATARI 8 BIT **£14.95**
- ST. **£19.95** • AMIGA **£19.9**
- IBM **£19.95**

TYNESOFT
COMPUTER SOFTWARE

ADDISON INDUSTRIAL ESTATE · BLAYDON · TYNE & WEAR · NE21 4TE · TEL: 091 414 4611

– Lafond – and the game becomes a challenge to evade the clasps of the one, seek the clasps of the other, and find Papa into the bargain.

RELEASE BOX		
C64/128	£24.99dk	IMMINENT
ATARI ST	£29.99dk	IMMINENT
IBM PC	£29.99dk	OUT NOW
AMIGA	£29.99dk	IMMINENT

Compared to other Infocom releases, however, there seems to be much less gameplay in *Plundered Hearts* than, say, in *Sorcerer*. There are 25 points in all to be gathered, and the Pilg had garnered 19 in one afternoon's play. The programming's excellent, of course, with various participants coming and going at appropriate times, and delivering appropriate remarks en route. In this last respect the game is slightly similar to *Suspect*, which also portrays a country mansion where a ball is taking place.

So, as far as the challenge is concerned, I have to say that this is not one of Infocom's best releases. But what about the atmosphere side? What about the style of the text? Most of all (because I know this is what you're all interested in) what about the romance, the love, the unbridled LUST, the....SEX!

There isn't any sex – at least not what most modern juves would call sex. There is however a great storyline and the text is excellent – every bit as good as the early Infocom masterpieces, almost on a par with *Lurking Horror* (one of my favourites). Above all it shines out precisely because it is drawing on a new tradition.

Commodore 64 owners will, as usual, rave in frustration at the lack of a RAMSAVE facility – the 1541 being most unsuited to Infocom games – and the rest of us may feel that this game is slightly on the easy side, but what it lacks in these departments it more than makes up for in its originality. Certainly, with adventuring taking new directions like this, we all have a lot to look forward to. ●

ACE RATED

SYSTEM	93	ENCOUNTERS	94
CHALLENGE	78	LANDSCAPE	90

VERDICT 905

NORD'N' BERT

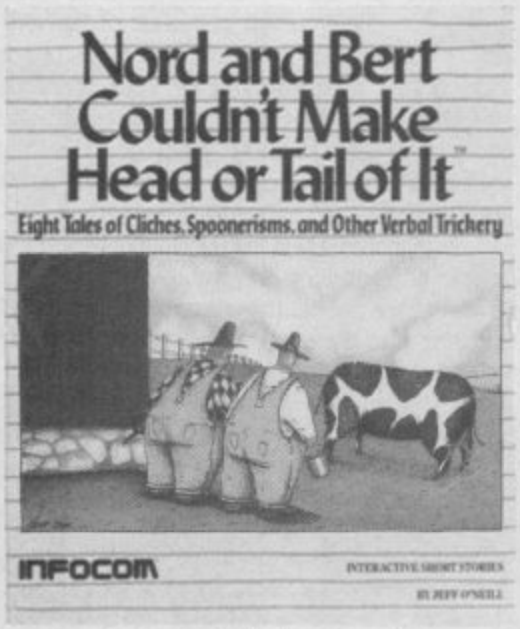
INFOCOM lunacy for puzzle addicts.

FROM romance to wordplay, Infocom's sudden search for new ideas takes another twist. *Nord and Bert* presents you with eight mini-scenarios, seven of which may be played in any order to yield a series of passwords that gives access to the eighth. The unfortunate citizens of Punster have been subject to mysterious alterations of reality and you are charged with putting their world back on its feet and restoring common sense.

You do this by entering each scenario and confronting therein a succession of topsy-turvey situations in which the right input from yours truly will transform your location and/or the objects within it. This process is repeated until you have scored all the possible points within that section and received in return your password.

Rather than being an adventure in the traditional sense, each of these scenarios is really just a series of verbal puzzles. In this sense, gameplay is rather similar to early Spectrum adventures in which you could spend hours trying to guess what input would take you past the obstacle to the next location. The problem is that most people are likely to find approximately half the puzzles extremely easy and the other half almost impossible. For this reason, it's advisable to treat *Nord and Bert* like a game of Trivial Pursuit – maximum enjoyment comes from playing with a friend or two in attendance.

RELEASE BOX		
C64/128	£24.99dk	IMMINENT
ATARI ST	£29.99dk	IMMINENT
IBM PC	£29.99dk	OUT NOW
AMIGA	£29.99dk	IMMINENT



Apart from substituting the pleasure of puzzles for the wonder of exploration, *Nord and Bert* also rings the changes on a number of other traditional adventuring habits. First, there are no directions. In each location a list of adjacent 'rooms' is printed at the top of the screen. To travel to one of these you simply type the name of the place in question. Similarly, there is no EXAMINE command and this function is performed by typing the name of the object followed by RETURN.

Fans of crossword puzzles and other forms of word-play will love *Nord and Bert*. Those of us with a disposition for exploration and discovery may find their patience sorely tried. Since puzzle magazines are the best-selling category of publication in the UK, the Pilg can only conclude that adventuring has spawned a new category of computer entertainment with tremendous potential. I suggest we call them 'pootles', the players 'pootlers', and look forward to hearing what readers think of this new art form. ●

White Wizard speaks...

...with forked tongue. I'm afraid I just can't allow this issue of ACE to pass me by without making comment on at least two of the games reviewed.

First, I reckon *Plundered Hearts* should get a lower rating. It's ridiculously easy for any seasoned adventurer and if you're paying between £25 and £30 for it you deserve a greater challenge. I agree that the text and the storyline are excellent, but is this enough?

While we're on the subject, I can't resist taking a poke at the Pilg for missing the real solution to his 'time-based puzzle' in *Plundered Hearts*. The solution he mentions, which appears out of 'thin air', appears only as a saving grace because he failed to crack the puzzle in time! Caught you there, Pilgy!

Nord and Bert – I really enjoyed this, being something of a quiz and puzzle fan, but I think the point needs to be made that it is definitely not a game for people expecting a traditional adventure. The best comparison I can think of is *The Travel Game* on the PC (reviewed in this issue). Again, however, I'm concerned about the long-term challenge.

I agree totally about the poor control in *Slaine* - it *is* infuriating - but once you get used to it the game plays reasonably well. Of course it's not a game for traditional adventurers, but I think that some people will get quite a lot of enjoyment out of it. I'd like to suggest a (marginal) improvement on the rating here.

Oh yes, and before I go, where's the retrospective review of *Suspect*, eh? Overwritten again, have you? Make sure it gets in next month, fatty. (*It will, baldy. Pilg.*).

SYSTEM	93	ENCOUNTERS	78
CHALLENGE	85	LANDSCAPE	85

VERDICT 895

BEYOND ZORK

ACE 920 RATED

INFOCOM introduce the Coconut of Quendor

ROLE-PLAYING programs tend to fall into two types – they're either games in which you form a 'party' of rogues to go adventuring (*The Bard's Tale, Mandragore*, and the *Ultima* series being good examples) or where you simply build up your own character and its attributes (as in *Moebius* or *Ring of Darkness*).

Unlike traditional adventures your 'game persona' changes during play. You can usually save your character(s) to disk and develop them over several games, often becoming quite attached to them in the process.

Unfortunately this business of character development tends to be pretty limited because the game formats themselves are limited – usually confined to treasure hunting and conflict. Puzzles are basic and there is little strategic planning to do. You just search, steal, and do your best to survive.

RELEASE BOX		
C64/128	£24.99dk	IMMINENT
ATARI ST	£29.99dk	REVIEWED
IBM PC	£29.99dk	IMMINENT
AMIGA	£29.99dk	UNDECIDED

Enter *Beyond Zork* with two major advantages: Infocom's strength in game design, and their parser.

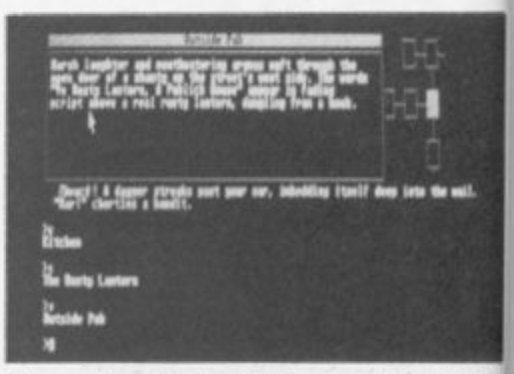
The game is of the single character type – you create your persona by sharing out an initial number of energy points between six different attributes, Endurance, Strength, Dexterity, Intelligence, Compassion, and Luck. Inexperienced players should concentrate on Endurance and Strength, since a higher rating in these enables you to survive longer in the initial stages of the game.

The program lacks graphics, unlike most other role-playing games, apart from an on-screen mapping facility. This in itself is something of a departure for text-only Infocom, but although useful it only displays a few locations at a time. A good map is still a useful asset and the game is easily charted.

The Infocom touch of mystery and imagination strikes from the very first screen. Instead of the usual hack, slay, and steal scenario you find yourself in pursuit of the infamous Coconut of Quendor. Success depends on careful management of your financial resources (you start with only 1 Zorkmid and you need about 2000 for a good suit of armour), spells, weapons, and other game characters.

Beyond Zork is a tremendously enjoyable blend of traditional adventure and role-playing. You've got all the character interaction, parsing, and exploration aspects of an adventure combined with the challenge of manipulating objects for trade and fighting as well as solving puzzles. And, of course, you must develop your character or die in the attempt. The combination of the two styles gives a game of great depth, with numerous sub- plots, challenges, and diversions. I'll leave you with this little quote from the game, where you have discovered a giant onion in the kitchen of the local tavern...

```
>PEEL ONION
Ouch! It's tough as leather.
        The cook's scowl changes to a
malicious grin. 'Listen boy', he says,
'You look like somebody who knows a
great vegetable when he sees one. You
want this onion? There's an old bottle
of wine lying downstairs somewhere.
Bring it up to me in one piece and the
giant onion's yours.' He glances at the
cellar door and shudders. 'Simple.'
```



New screen lay-out for *Beyond Zork*. The map on the right highlights the current location and gives exit information, but not much else.

SYSTEM	94	ENCOUNTERS	94
CHALLENGE	92	LANDSCAPE	90

VERDICT 920

SLAINE

MARTECH move Celt from comic to computer

THERE have been many attempts to convert comics into computer programmes. Scott Adams took the Marvel superheroes and stuck them in rather primitive graphic adventures with tricky puzzles and poor parsers; Melbourne House came up with their own super- hero, *Redhawk*, and actually tried to create a comic on- screen, complete with speech bubbles and scrolling frames. Neither approach really succeeded, though fanatics could do worse than check out *Stifflip and Co* from Palace, which adopts the Melbourne House approach and improves upon it.

RELEASE BOX		
C64/128	£9.99cs, £12.99dk	IMMINENT
SPEC	£8.99cs,	OUT NOW
AMS	£9.99cs, £14.99dk	OUT NOW

Slaine is something completely different, superficially at least. Based on the 2000AD comic strip hero of the same name, the program presents a colourfully decorated screen featuring cameo displays of your location, the characters in it, a text-frame, and – above it – a blank area across which various commands and playing options scroll smoothly and rapidly.

Slaine and his side-kick Ukko (both of whom are reasonably faithful in appearance and characteristics to their excellent comic counterparts) find themselves caught up in a search and destroy quest, with numerous ogres, dwarves and other enemies to do battle with as well as treasure to find and wrongs to right. Gameplay involves selecting (using a 'severed hand icon') the appropriate actions as they slip across the screen. This in itself takes at least half-an-hour to get used to and even then control is difficult if you're in a hurry (when fighting, for example). The method is ingenious and imaginative, the idea being that the options are thoughts flitting through Slaine's mind, but it is also highly impractical. Combine this impracticality with a rather limited scenario and you have a recipe for an intriguing, attractive, but seriously flawed game.

Slaine – those commands slip across the screen at an alarming rate. Can you click on *Defend* before you get the chop? The lower right-hand part of the display shows frequent cameo pictures of your location, objects carried, and your vile companion Ukko.

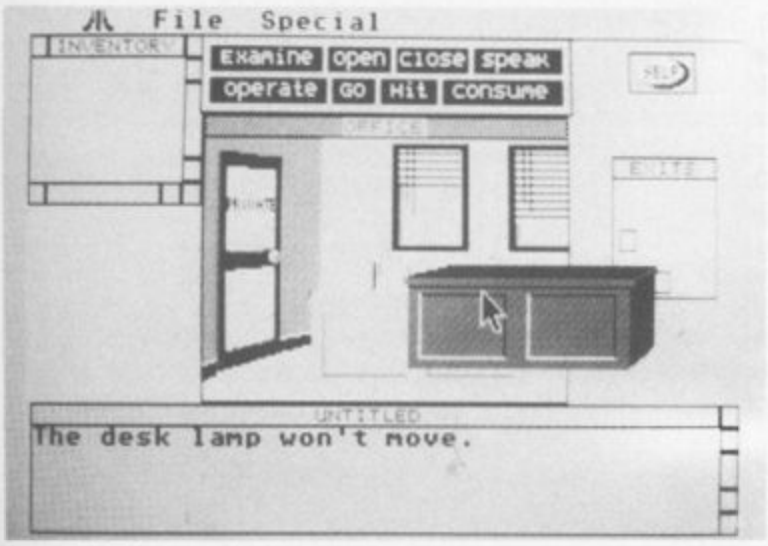
One thing *Slaine* and the earlier *Redhawk* have in common is the favouring of programming techniques over storyline. It's not an approach that brings either lasting interest or intense player involvement, but it does have a value in showing us different ways of structuring programs, some of which may be further developed in future. In the meantime, you're probably better sticking to the comic...

SYSTEM	58	ENCOUNTERS	55
CHALLENGE	68	LANDSCAPE	62

VERDICT 615

16-bit Snapshots

Games from Infocom and a number of other US publishers have long been released for 16-bit machines. The popularity of the IBM PC in the States ensured it a steady flow of games, and the Apple Macintosh has seen some revolutionary programming on the adventure side. ACE will be giving increasing coverage to these games in the coming months, but here are a few tasters to whet your appetite:

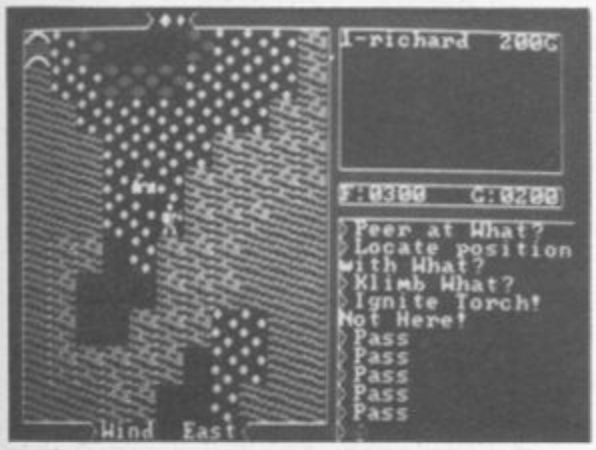


ST: *Deja Vu*

This is the first of a series of games originally written for the Mac and now appearing on the ST, courtesy of Mindscape in the US (and distributed by Mirrorsoft in the UK). Quite apart from some excellent graphics, the system allows you to use the mouse to open doors, select objects and even move them about. Here you see the Pilgrim raising a desk to check there's nothing underneath.

Mac: *Guild of Thieves*

Not many people seem to realise that this Magnetic Scrolls game is also Macced. So's the *Pawn*. We'll be looking at some other Mac adventures over the next few months – some of them are pretty staggering



PC: *Ultima IV*

Role-playing games could really benefit from 16-bit power and RAM capacity, giving them a scope and popularity they never managed to find on 8-bit micros.

ST: *Mortville Manor*

This French game distributed by Eidersoft features the best sampled sound effects we've heard. The characters in the game actually talk back to you, but unfortunately their accent makes much of what they say completely unintelligible. Promises well for the future, but since we're not fluent in sampled Franglais we still haven't been able to finish it.

Pat's Patch

This month Pat gives PAW users the chance to provide automatic exit printing...

The logic of our PAW routine is similar to that used on GAC, but a bit more fiddling is needed! As with GAC, what we have to do is discover whether an exit exists in a particular direction for the current room, and if so, print the relevant message.

PAW routine

(enter in Process 1)

```
1.   _    *      MES     'visible exits'
                CLEAR   101

2.        SOUTH COPYFF  38    100
                LET     33      2
                MOVE    100
                ADD     100   101
                NOTZERO 100
                MES     'south'

3.   _    EAST  COPYFF  38    100
                LET     33      3
                MOVE    100
                ADD     100   101
                NOTZERO 100
                MES     'east'
4.   _    WEST  COPYFF  38    100
                LET     33      4
                MOVE    100
                ADD     100   101
                NOTZERO 100
                MES     'west'

5.   _    NORTH COPYFF  38    100
                LET     33      5
                MOVE    100
                ADD     100   101
                NOTZERO 100
                MES     'north'

6.   _    _     ZERO    101
                MES     'none'
```

PAW notes

Line 1 This line prints the 'visible exits' message, and clears flag 101 for use as an accumulator.

Lines 2 to 5 Each of these entries covers a possible direction, and all work in exactly the same way:

a) The number of the current location (flag 38) is copied into flag 100.

b) Flag 33 holds the current verb, so this line sets the flag to indicate which verb we are considering (i.e. the number of the conversion noun)

c) **MOVE 100** looks up the connection table entry for the chosen direction and the current location. If a connection with another location is found, that location number is placed in flag 100. If no connection is found, zero is placed in flag 100.

d) For future use, we want to keep track of the result of **MOVE 100** for each direction, so **ADD 100 101** maintains a running total of the result placed in flag 100. (see Line 6)

e) Assuming that your adventure contains no connections to location 0, a result of **NOTZERO 100** means that no connection has been found for the direction under consideration. If flag 100 contains any number at all (i.e. is **NOTZERO**), then movement is possible and PAW looks for the next condact. If flag 100 contains zero, PAW drops through to the next entry without printing anything.

f) Thus any connection found from the current room will be printed to the screen.

Line 6 At this stage, flag 101 will hold the total of all numbers returned by MOVE 100 for each direction. If no valid connections have been found, nothing will have been added to flag 101, so it will now hold zero. But if any connections have been found, flag 101 will not be zero. If flag 101 is zero, the message 'none' is printed instead of one or more specific directions.

Letter from the SHADE

Sappho The Witch emerges from the embrace of battle and barbarian to bring you the latest gossip from Micronet's SHADES - the on-line multi-user game where real people get into some truly unreal situations...

Life in Shades is a busy as ever. The 80-column scrolling gateway is finally open, and about time too! Players thus have the choice of playing either the familiar 40 column viewdata format with the blue sky on a red horizon effect, or the faster scrolling format. I personally prefer the scrolling game (when I can get on) which isn't all that easy as there are only a few places available.

A new version of the game has been loaded; the new rooms added, puzzles changed, items moved, new mobiles, and so on. This in itself has caused quite a stir, with players complaining that it is too difficult, with too many dangerous mobiles.

The changes looked good, although it was obvious that players had to think harder than was previously necessary. Quite a few players had the new version worked out after a few hours work. But as they have spent such a long time using the same 'reset routine' having to change to a more flexible approach it isn't really suprising that the game is a little daunting at first.

Wizard blottings

Meanwhile, a popular topic of heated discussion in the Shade has been the number of wizards that have been blotted, 'the Blot' being more or less equivalent to the FOD (finger of death) in MUD..

Some say that when a player has reached the exalted ranks of the Immortals then they should be able to do virtually anything that they wish. To some extent, yes, they should. However, on Shades, there are a number of restrictions that are placed on the wizards, and witches. One such rule is that Immortals should not give out large quantities of treasure to mortals.

This is understandable. Immortality would be de-valued if mortals could be given as much treasure as they wanted to get to Immortality. However, should an Immortal live in fear of giving out a few hundred points? Well, yes, it would seem so. Not so long ago Ziklag the wizard was blotted for giving Perkins a large amount of treasure, and now Puzi has gone the same way. Who said that it was better to give than....?

Taurus is, or should I say 'was', one of the latest Immortals, and he is now famed for being the shortest-lived Wizard in Shades history. After making Wizard one morning he accomplished Immortality for a whole day before his actions apparently called for the dreaded blot. I saw Taurus on the game a few days ago, and when asked if he was going to try for Wizard again his reply was simply 'You bet!'. Did Taurus deserve blotting? That's not a question that we can answer - the Guardians of the wizards/witches and mortals have to abide by those rules.

With all these 'Policemen' about it's enough to make the most stable persona paranoid. But then, just because you're paranoid it doesn't mean that they are not out to get you...

● **If you've any gossip for this column, pull your hat down over your ears, check no-one's listening, then mailbox me on 019998149. Stay Shadey!**

No Problem!

We're a bit short of space this month, but all praise for these tips must go to Darren Hebden, Guy Derham, and M.Hodsman. Don't forget, the more clues everyone sends in for this section, the more help readers will find here.

Witches Cauldron
Turn Turn Turn Tacyssup transforms the cat.
Whisky, crushed shell, diamond, sheep's eye makes potion for gorilla transformation.

Terrormolinos
The steps have to be locked before use.
Lose the bull in the china shop.

Hampstead
The lathe retaining bracket, the tweeds and the arty mag are needed on the train to get the tie.
Don't go in the cinema.
Buy a suit with the credit card found under the bench.
To get the job in the bank, remember who gave you the tie and wear it with the suit when in the club.

ZZZZzzz
Aim the gun before firing. Fire at the Target first then the Duck.
Leave the bus with the balloon.
Drop the bullseye on the man guarding the border.

Three weeks in Paradise
Go between arrows marked 'in' and press 'A' to teleport.
Get the stuffing to get past the bird
Get Wilma's handbag to get past the crocodile.
Jump through the picture to the sea-side.
Press 'A' to swim up.
Walk onto sea plug to get to cave.

Pawn
Cover the wristband with the shirt to stop Guru laughing.
Tie the rake and hoe together with the shirt to lever the rock.
Climb over the rocks.
Exit maze if stuck.

Adventure Helpline Launch!
Check out page 144 for full details...

The Pilgrim's Player's Guide to Hitchhikers...
Part 2

You've arrived in the Heart of Gold, and your first task is to check out the engine room. Take the spare improbability drive to the bridge – if you have trouble activating it, put the small plug in it and **the dangly bit** (found on the plotter) into the advanced tea substitute (you **did** check the Nutrimat, didn't you?). Don't drink it unless you want to lose points. You can then activate the drive and pop off to some alternate universes.

The **Bugblatter beast** requires the towel, or rather you need it. Try popping it over your head if you're having trouble. Don't hesitate to vandalise the memorial and make sure you get the Interface.

Should you find yourself playing **Trillian**, check out Arthur, get the fluff and put it in the bag. **Ford** should go to Arthur's house and give him the towel. After you've dealt with Prosser (he must lie down, poor chap) make sure you give Arthur the satchel fluff and get the thumb before the fleet arrives.

Zaphod should ensure he gets the toolbox, small key, and **seat cushion fluff** before he leaves the boat. The guards will drop their rifles if required, whereupon you can blast them. If you're **really clever** you'll then use the **tea** as a Brownian Motion Generator, but this won't help unless you put the flowerpot inside the **thing** – which will return to you on the Heart of Gold later.

The **war room** is a doddle, really. Just listen in, get the **awl**, and make sure you take the **particle**. You'll then find yourself back in the HOG. You should by now have **four pieces of fluff**. You haven't? Oh dear...Have you got the **jacket fluff**, and the **seat cushion fluff**, **the satchel fluff**, and the...but we can't give it **all** away, can we?

Pop the four fluffs in the flowerpot, wait, then take the pot into the sauna. Eat, enjoy, and stand by for next month's final instalment, in which you finish the game.

Oh, and by the way, don't forget to take a careful note of the **tool.** You'll be lost without it!

Next month...

The Pilg checks out Jack the Ripper, the White Wizard examines a state-of-the-art American adventure, Shadowfax, Pat Winstanley gets her PAWs on Gilsoft's Professional Adventure Writer, plus Pilgrim's Post, No Problem!, and more than you ever dreamed possible in five pages...roll on 1988!

PBM AVALON

FREE

The chronicles of the *'Knights of the Avalon'*, is a new 100 player computer moderated Fantasy Play By Mail game from JADE Games. Startup is **FREE**, with further turns costing 70p, players outside of the UK £1.00. The game features, 1000s of player armies and fleets constantly involved in conquest, a playing area of 1,250,000 sq miles with over 100,000 locations. A highly developed class system of squires, knights, lords etc fighting to become emperor. An economic trade system with 1000+ trade items, merchant and political banks, stock markets and trade treaties. Religions based on a planet wide network of temples and monasteries. Players having the choice of accepting one of the twenty existing gods or creating their own god and religion. A hierarchy of gods capable of direct interaction with players. Alliances of trade, religion, politics and military might. **+ MUCH MUCH MORE,** games limited only by the players imagination.

For a **FREE** startup write to:
JADE Games, **FREEPOST,** Southsea,
Hants, PO4 0BR
(no stamp required)

STORM

Discount Software

122 MELROSE AVENUE
WIMBLEDON PARK
LONDON SW19

Discount Software

Mail order only **No Callers**

ST ADVENTURES	
Kings Quest III	17.50
Space Quest	17.50
Bards Tale	24.95
Lurking Horror	21.50
Perry Mason	14.50
New Princes in Amber	14.50
Station FALL	21.50
Hollywood Hijinx	21.50
Hitch Hikers Guide	21.50
Leather Goddess of Phobos	21.50
Knight Orc	14.50
Trinity	27.95
Bureaucracy	27.95
Not A Penny More	14.50
Metville Manor	17.50
Pondered Hearts	17.50
Lurkinger	17.50
Championship Water Skiing	14.50
Charlie Chaplin	14.50
Defender of the Crown	21.50
Flying Shark	14.50
Gary Linaker Foodball	14.50
Gauntlet II	14.50
Mean Streak	17.50
Outrun	14.50
Sky Fight	14.50
Solomons Key	14.50
Tracer	14.50
Super Sprint	14.50
Top Gun	14.50
Ultima 4	14.50
Wizard Wars	14.50
Wizball	14.50
STRATEGY/WAR	
Blue War	14.50
Chess Master 2000	19.95
Colonial Conquest	21.50
The Sentinel	14.50
Rubiga 3000	14.50
Sub Battle Simulator	17.50
Rings of Zilfin	17.50
Star Trek	14.50
Hunt for Red October	17.50
Roadwar Europa	17.50
Balance of Power	21.50
Phantasie 3	17.50
GATO	21.50

ST ARCADE	
Barbarian Palace	10.95
Mission Elevator	14.50
Panarama	14.50
Star Wars	14.50
Army Moves	14.50
PHONE FOR AVAILABILITY	
Indiana Jones	14.50
ACE II	14.50
Alternative World Games	14.50
Back Clash	14.50
Bermuda Project	17.50
Blood Valley	14.50
Brave Star	14.50
Bobble Bubble	14.50
Capitain America	14.50
AMIGA ARCADE	
Top Gun	14.50
Slapfight	14.50
Sky Fox	14.95
Into the Eagles Nest	14.50
Tracker	14.50
Road Runner	17.50
Hard Ball	17.50
Air Ball	17.50
Prohibition	14.50
Tai Pan	14.50
Crystal Castles	10.95
Winter Games	17.50
World Games	17.50
Gauntlet	17.50
Barbarian	17.50
Earl Weaver Baseball	17.50
Terrorpods	17.50
Hunt for Red October	17.50
Bardes Tale	19.95
Chess Master 2000	19.95
Road War Europa	17.50
Five Power	17.50
Faery tale	36.95
Uninvited	21.50
Dejavu	21.50
Balance of Power	21.50
Fantasy 3	17.50
PHONE FOR AVAILABILITY	
Test Drive	19.95
Formula 1	19.95

ALL PRICES INCLUDE VAT, POST & PACKING FOR UK MAINLAND
Subject to availability all goods despatched within 24 hours
Overseas order add: Europe £1 per item, Others £2 per item
For Access & Visa phone our shop on 01-870 4941
Make Cheques/P.Orders payable to **Storm Computers**. S.A.E. for full list

VISA

NEW, BETTER VALUE... STARTER PACKS

Phone Now for details of Our Low Cost Easy Payment Scheme

- SAVE £££'s
- Atari 520 STFM Computer
- Built-In ½ Meg. Disk Drive
- Built-In ½ Meg. RAM Memory
- Built-In T.V. Modulator
- Built-In Power Supply
- Separate Numeric Keypad
- Midi Interface
- 512 Available Colours
- Free Mouse Controller
- GEM on ROM
- Free Atari Language Disk
- 5 Free Disks . . . .
- C/PM, Utilities, Demo's etc.

ONLY . . .

£260-00 EX. VAT

inc. VAT = £299.00

Also Free..... Only from Compumart

- 10 BLANK DISKS
- MD 70L STORAGE BOX
- MICROBLASTER JOYSTICK

(Total Value of these items - Nearly £40!!!)

Compumart Care MORE....

We now offer a "FREE LOAN MACHINE" (subject to availability) should any delay occur during your Warranty Repairs.

Great Compumart Deals always available on the full range of ATARI ST Hardware, Software and Peripherals.

VISA Access

Compumart

Dept ACE · Unit 8 · Falcon Street
Loughborough · Leics · LE11 1EH
☎ 0509 – 262259 / 266322 / 233893

(Prices & Delivery Subject to Availability E. & O.E.)

A GREAT DEAL MORE ●HARDWARE GUARANTEE-If goods are faulty within 30 days of Purchase, Compumart will replace for brand new; After 30 days we will repair (In both cases WE pay ALL carriage costs) ●Usually SAME DAY-DESPATCH ●FREE DELIVERY(UK) by Parcel Post ●FOR SECURICOR 24HR DELIVERY-Add just £5 ●OVERSEAS ORDERS-Add 25% to ex-VAT prices for delivery/insurance

- FREE DELIVERY
- UNBEATABLE GUARANTEES
- SUPERIOR BACK-UP SERVICE

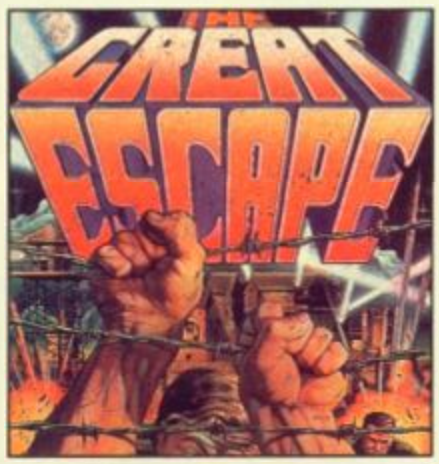
Compumart

A GREAT DEAL MORE FOR A GOOD DEAL LESS!

ocean NEWS

P.O.W.s FLEE

OVER 200 prisoners escape after months of planning and preparation. They used the obsessive time-keeping routines of their captors to their own advantage planning a series of sorties to reconnoitre implements and tools to aid their escape, to find possible routes to freedom and to execute their painstaking plans.



1 JUMP AHEAD

EVERYONE has a special friendship but none could be quite as special than that of Head and Heels, the two intergalactic crime-busters who have just returned from their latest mission in the Castle Blacktooth. "We couldn't have done it without each other" smiled Head. Now you can see for yourself in the their incredibly inventive super-game. You'll marvel at the graphics in this 3D adventure and you'll just scream with delight at all the tricky problems facing Head Over Heels. There's something new around every corner!

Colour Vanishes

THE evil Zark strikes again to leave our world void of all its glorious colour.

Our only hope now is for the magical powers of Wiz and his fantastic feline friend, Catelite to perform their wonderous deeds – indeed, Zzap has already been quoted as stating "the finest release this year".

CHRISTMAS SPECIA

4 NEW RELEASE

NOW FOR TH PC

MAVERIC SKIE OU

TOP Gun has gone through the roof! "Flyin never been so easy – the hard part is winning!" say Gun. On his latest assignment he just couldn't be sto – flying supersonic and producing aerial manoeu that would fool a turbo-charged horse fly he quipped – "It's simple, just enter the danger zone!"

ALL GAMES ONLY £19.95 FROM YOUR LOCAL SOFTWARE DEAL

Ocean Software · 6 Central Street · Manchester M2 5NS · Tel: 061-832 6633 · Telex: 66

SCREEN TEST

Christmas is a-comin' and the software houses are slavering at the prospects of getting their hands on your cash. That's why they're bringing out all the big guns, and that's why we're reviewing more games than ever before in our history. 32 titles get the ACE treatment – and precious few of them are naff. Unless you've got pots of money it's going to be tough choosing between games of the calibre of *Nebulus*, *Stealth Fighter*, *Bobsleigh*, *Madballs*, *Buggy Boy*...but help is at hand; the ACE reviewing system is designed to give the clearest possible idea of how good a game is *and* how long it's going to last you. So look no further for your authoritative Yuletide software guide

SCREEN TEST INDEX

60 STEALTH FIGHTER Microprose
61 DEFLEKTOR Gremlin/Vortex
62 BOBSLEIGH Digital Integration
63 720 US Gold
64 PASSENGERS ON THE WIND 2 Infogrames
68 NEBULUS Hewson
69 SKATE OR DIE Electronic Arts
72 ZIG ZAG Mirrorsoft
73 THROUGH THE TRAP DOOR Piranha
73 WEREWOLVES OF LONDON Ariolasoft
74 MADBALLS Ocean
75 AIRBORNE RANGER Microprose
75 PHOENIX Ere/Infogrames
76 DRILLER Incentive
80 BUGGY BOY Elite
81 THE TRAVEL GAME Ruleformat
82 BRAVESTARR Go!
82 R.I.S.K. The Edge
84 GUNBOAT Piranha
84 HYBERBLOB Firebird
84 AGENT X 2 Mastertronic
84 ACTION FORCE Virgin
85 BUBBLE GHOST Ere/Infogrames
86 SUPERSTAR ICE HOCKEY Databyte
86 INSIDE OUTING The Edge
86 KROMAZONE Mastertronic
86 ARCADE CLASSICS Firebird
87 VERSION UPDATES
89 FREDDY HARDEST Imagine
89 PHANTOM CLUB Ocean
90 JACKAL Konami
90 BLUE WAR Go!
91 DARK SCEPTRE Firebird

THAT REVIEWING SYSTEM

Regular readers will notice some subtle but profound changes this month in the layout of our reviews.

To make our coverage even more thorough, we've introduced separate Predicted Interest Curves and ACE Ratings for *all* versions of a game, along with separate comments boxes.

The main review now tells you how the game is structured and how it plays; the separate boxes let you know how each version rates in terms of Graphics, Sound, IQ Factor and Fun Factor.

You'll also notice that we've dropped the bars giving a readout of these ratings in favour of a simple score out of 10; this was partly because of the pressure on space, partly because some people (no names, no pack drill) complained that they didn't find the bar ratings too easy to understand.

We're sure that these tweakings will make the system work even better; it's now clearer to owners of whatever machine a game is released on just what we think of that version.

PROJECT STEALTH FIGHTER

MICROPROSE sneak you in to the skies

DESCRIBED as the all-but-invisible aircraft, the F-19 Stealth Fighter is America's latest all-weather reconnaissance and strike fighter.

Having signed all the necessary top secret documents, the player climbs into the cockpit and takes to the skies in an attempt to combat international terrorism. Included in the game are four scenarios: Libya, Persian Gulf, North Cape and Central Europe and there are various missions to be completed within each scenario e.g. the Libya mission could have the player destroying oil wells, oil terminals, S.A.M. (Surface to Air Missile) battery radar bunkers and airbase control towers. Alternatively the player could sneak in and photograph the installations using the on-board 135mm/IR camera.

The level of competence of the opposing forces can be decided by the player, from green (unskilled and unsophisticated) to veterans (battlewise). Having decided on, and set the various parameters, the player takes to the sky and views the action from one of three cockpit views – left, right or centre. The centre display is the player's main viewscreen and therefore carries the Head Up Display, (H.U.D.). This gives the player all the necessary flying information including altitude, velocity, range-changeable radar and a short range map.

The F-19 Stealth Fighter can carry an impressive array of weapons, and before

Gentlemen take polaroids...

If your morals won't let you fly over strange and wonderful lands and drop bombs on the people below, then never fear. *Project Stealth Fighter* can have the player flying reconnaisance missions merely shooting photographs of various military installations. Of course someone else will view the photographs and probably go bomb the installations at a later date – but at least *your* concience will be clear.

RELEASE BOX

C64/128	£14.95cs, £19.95dk	OUT NOW
SPEC	£9.95cs	JAN/FEB 88
AMS	£14.95cs, £19.95dk	JAN/FEB 88
ATARI ST	£24.95dk	JAN/FEB 88

C64 Version

The screen is well designed and the graphics are as colourful as you'd expect. Sound, too, is up to standard with whining engines and authentic-sounding explosions. Not as demanding intellectually as the true flight sims – but a lot more fun.

GRAPHICS	8	IQ FACTOR	5
AUDIO	8	FUN FACTOR	7

ACE RATING 863

Night flying - it's time to display your skills at dogfighting.

DEFLEKTOR

ACE 906 RATED

Mental exercise from VORTEX/GREMLIN

LASERS may be a standard part of the shoot-em-up author's repertoire, but they rarely play any great part in brain games. That's rather a pity: even though it only scratched the surface with its simple mirror arrangements, Virgin's *Rebel* showed what absorbing puzzles you could make out of optics.

Don't despair, laser fans. Where the Gang of Five didn't quite do the trick for Virgin, Vortex's one and only Costa Panayi has come up trumps with this new deflekt-em-up. Now you've got multi-direction mirrors, fibre-optic conduits, polarising and refracting blocks to deal with as well as bombs, blobs and some thoroughly infuriating aliens.

It's a simple idea really (though you needn't think that'll save your sanity). Each screen has a laser and a target, and your aim is to connect the two using the optical devices to hand. These are mostly mirrors, fixed in position but pivoting so that you can point them more or less whichever way you want. Just use the joystick to move your cursor over the mirror you want to adjust, hold the fire button down, and push left or right to swivel the mirror one way or the other. In addition, different screens have fibre-optic cables - aim a beam into one end and it comes out of the other still going in its original direction – plus automatically rotating mirrors and various other devices which you can use to your advantage.

Before you can construct the beam path, you'll have to clear the screen of blobs. These little devices have been left lying around by aliens, and you only get clear access to the target once you've zapped them all by deflecting the laser so as to hit them. It's tricky work: the aliens also leave bombs lying around, and playing the laser on one of these for too long will blow you to pieces, costing you one of your three lives.

Bombs aren't the only hazards. Many of the screens have walls of absorbing brick, and these can prove dangerous: while you can glance the beam off them if you hit at a shallow enough angle, they'll overload and destroy your laser if you leave the beam playing on them at right angles. Similarly, if

RELEASE BOX

C64/128	£ 9.99cs, £14.99dk	DEC 87
SPEC 48k	£ 7.99cs	OUT NOW
ATARI ST	£19.99dk	JAN 88

Spectrum Version

Coded by Costa himself, and it shows: bright colours and chunky shapes earn this one a big thumbs-up on graphics.

GRAPHICS	7	IQ FACTOR	8
AUDIO	4	FUN FACTOR	7

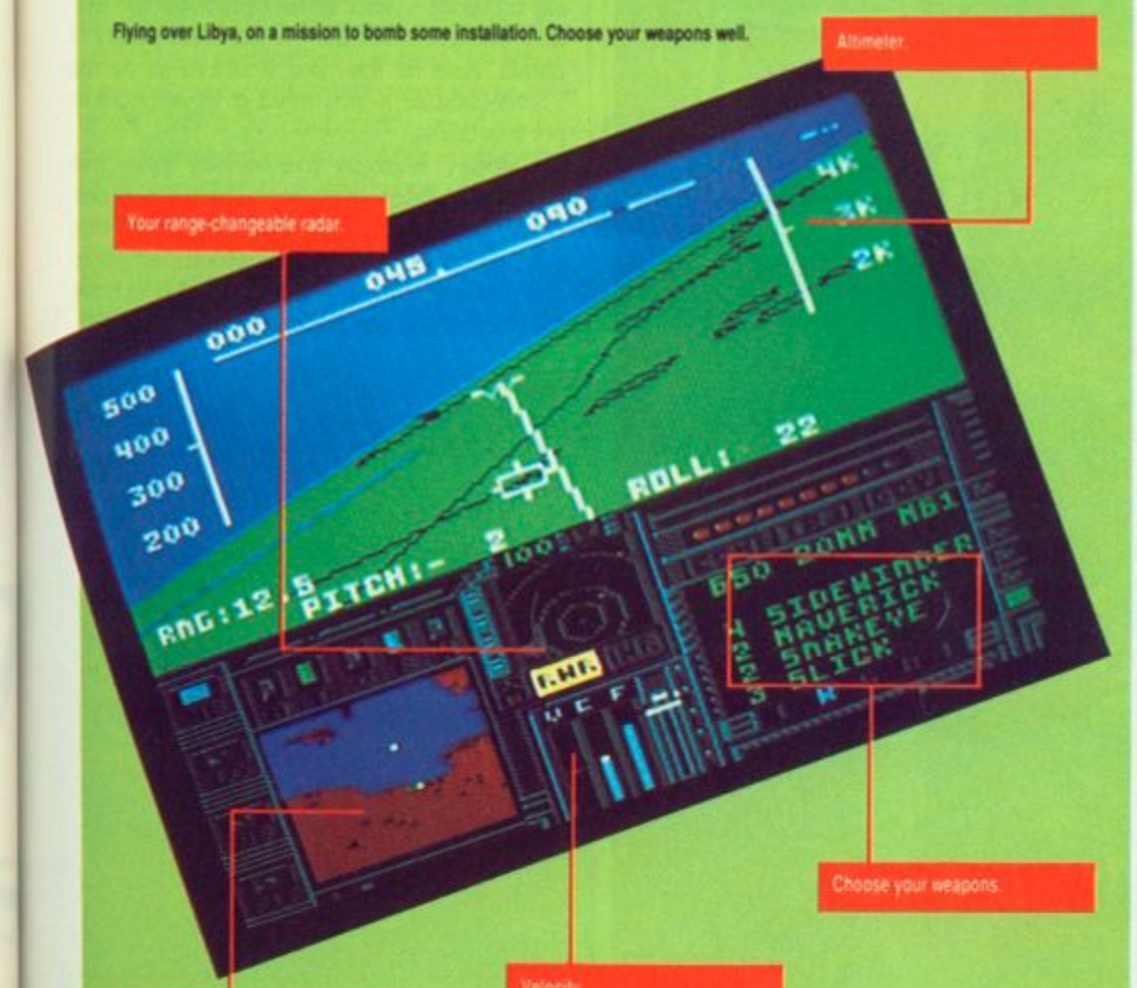
ACE RATING 906

PREDICTED INTEREST CURVE

Brainy stuff and addictive too – but the odd lives system slightly mars the long term enjoyment

Is it a bird?

Flying over Libya, on a mission to bomb some installation. Choose your weapons well.



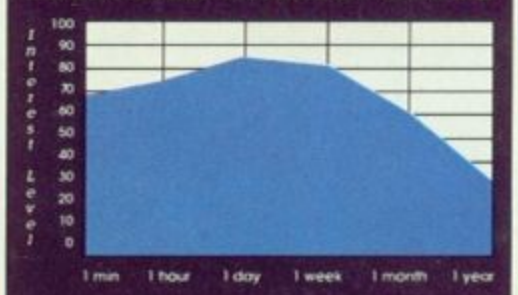
each mission the player can decide exactly what armaments he should carry. Despite the vast amount of detail provided in the flight manual and technical supplement the aircraft is very easy to fly. This is probably due more to Microprose wanting to involve the player in the action side of things rather than accurately re-create the flight controls.

Once you're familiar with the controls and the game, you can start to worry about promotion. Successfully completing a mission can have the player advancing through the ranks toward Brigadier General, or indeed could result in the player receiving one of four decorations. Thankfully a save option is included so you can fly whenever you're free.

Project Stealth Fighter is certainly an enjoyable game; there are enough technical details to keep the player involved and certainly enough different and varied missions to keep the player flying.

● Andy Smith

PREDICTED INTEREST CURVE



Learn to fly and the fun really hits the clouds: gets to be tactical so you'll need your brain clear and alert. the save facility will keep you coming back for more

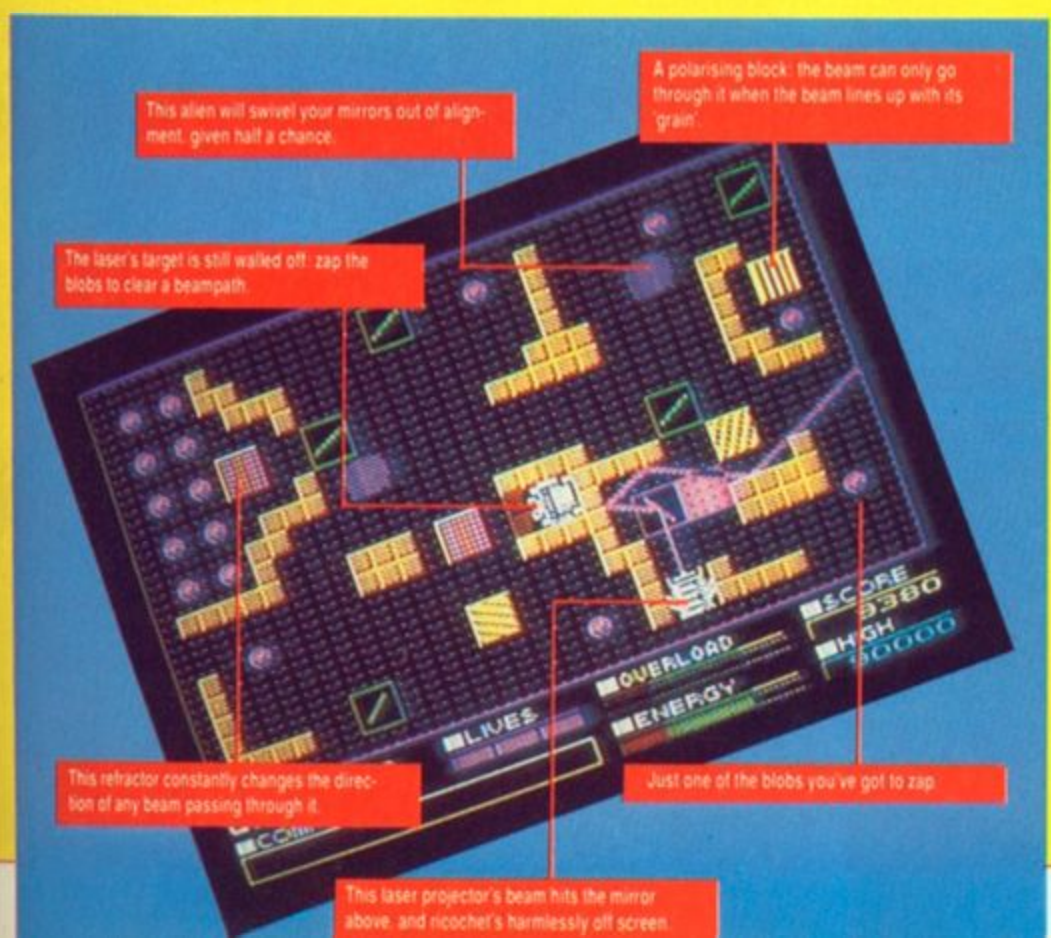
you bounce the beam back down into the laser projector you'll soon get an overload. In either case, or if you take too long and run out of power for the laser, you lose a life.

If all these ways of dying sound easily avoidable to you, you're reckoning without the game's most maddening feature – aliens! These interfering little menaces don't take kindly to people zapping their blobs, so they'll scramble your nicely arranged mirrors whenever they get the chance. You can knock them out for a while if you catch them messing with a mirror – just put the cursor over them and press fire – but they can do for you a sight more permanently by setting up an overload or pointing the beam at a bomb. If your cursor's over the other side of the screen it's a mad dash trying to save the situation here, and time's still ticking away.

The gameplay has a number of slightly unusual touches to it, the main one being the system of lives: you start with three of them for each screen, no matter what. Scrape through a screen by the skin of your teeth and you've still got a full set of lives for the next one – but come through unscathed and your bonus'll be that much larger. This makes it easy to get through to reach the screen you're currently stuck on, but doesn't provide too much of an incentive to perfect your technique.

Fascinating stuff that keeps your heart firmly in your mouth, *Deflektor*'s got 60 screens of beam-bouncing problems. With some of these being a touch on the easy side that may not give it the longest life imaginable, but it is addictive stuff. Vortex fans, you have not waited in vain.

● Andy Wilton

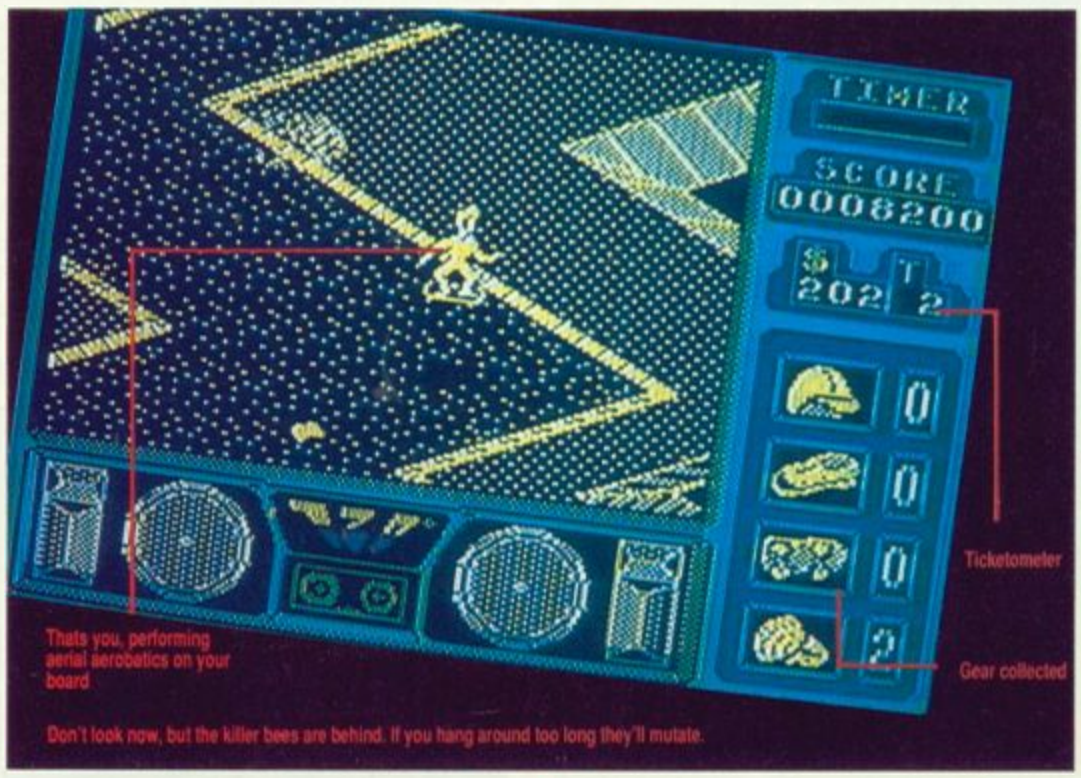


C64 Version – a taster

The near-finished version we saw was great to look at and listen to, but the Gremlin conversion team slipped up rather on the cursor: it gets in the way of the selected mirror, so you can't really see what you're doing when you swivel it around.

720°

Get on board and go with US GOLD



SKATE City is where the action takes place in this skateboard simulation, based on the coin-op of the same name. You and your board must go places, do things and generally accumulate points – and what do points make? Prizes! Correct, but don't expect an all-expenses-paid-trip-to-Disneyland. The only prize you'll get is a ticket to the skate park where you can strut your stuff and... collect more points.

Before rolling in to Skate City you must decide upon your skill level. Whether you opt for trainee or old hack there's still plenty to avoid. So remember, be careful out there.

The city – an American city (where else would you see body builders, unicyclists and break-dancers on the same street?) – consists of four parks, four shops, streets and inhabitants. The idea is that you roam the streets collecting points and money. Points are gained by jumping, spinning and pulling wheelies – the more exotic your trick, the richer your reward. Hidden locations also clock up welcome points. Certain freebies, such as dollar bills, add to the bank balance.

At the start of the game you have three tickets, which give you access to the parks. Enter a park and you lose a ticket, but get the chance of performing (see box) and gaining a medal – Gold, Silver or Bronze. Do well and you get a decent medal, and plenty of points. And as the points arrive so do the tickets (trouble is you need a lot of points to get one ticket).

Money enables you to buy protective equipment from the shops: helmets, shoes, pads, skateboards. You may wonder why you need this gear, well, remember you're on American turf. If you look good and have the goods then you're bound to perform well.

NICK Phipps is not a name that springs immediately to mind when you're asked to think of a top class sportsman. He is however, currently rated as Britain's top Bobsleigh driver, and has endorsed this latest simulation from Digital Integration.

The player gets a driver's eye view of all the action on six World Championship tracks, and has to fight his way from amateur status to Olympic standard by sheer guts, skill and determination.

Simply learning the controls and winning the odd race is not enough in this game. The player has to compete and do consistently well enough to win the sponsor -

RELEASE BOX

C64/128	£9.95cs, £14.95dk	OUT NOW
SPEC	£9.95cs	OUT NOW
AMS	£9.95cs, £14.95dk	DEC 87

RELEASE BOX

C64/128	£9.99cs, £11.99dk	DEC 87
SPEC	£8.99cs	OUT NOW
AMS	£ 9.99cs, £11.99dk	DEC 87

Park performer

Downhill – stick to the slope and you're okay. The easiest of the bunch.
Jump – can be tricky if you don't remember when and where to jump.
Ramp – simple, just keep moving. When you get to the top change direction. Jumping can prove dangerous.
Slalom – sharp directional changes are needed to keep you going through the flags.

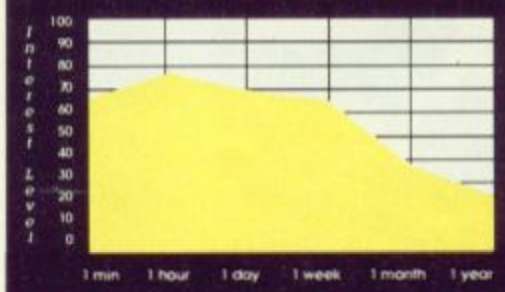
SpectrumVersion

While skateboarding can be a lot fun once you've got the hang of the controls, 720's graphics slightly take the polish of the game – they're a little on the indistinct side. The 'killer bees' in particular swarm so closely that they might just as well be called a killer blob. The sound, too, is nothing to write home about.

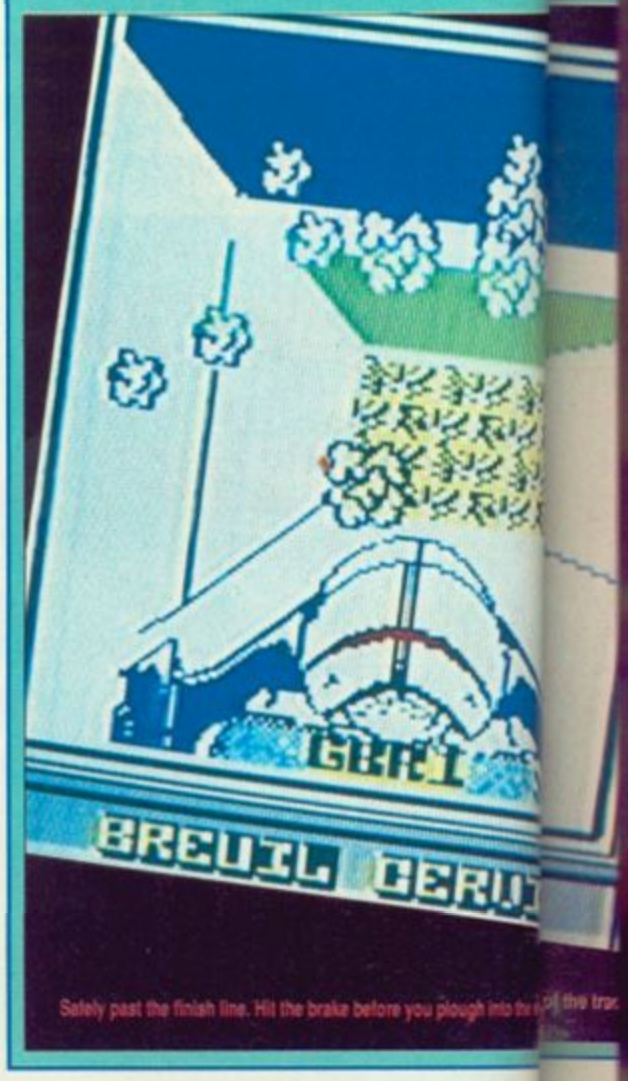
GRAPHICS	7	IQ FACTOR	5
AUDIO	4	FUN FACTOR	7

ACE RATING 721

PREDICTED INTEREST CURVE

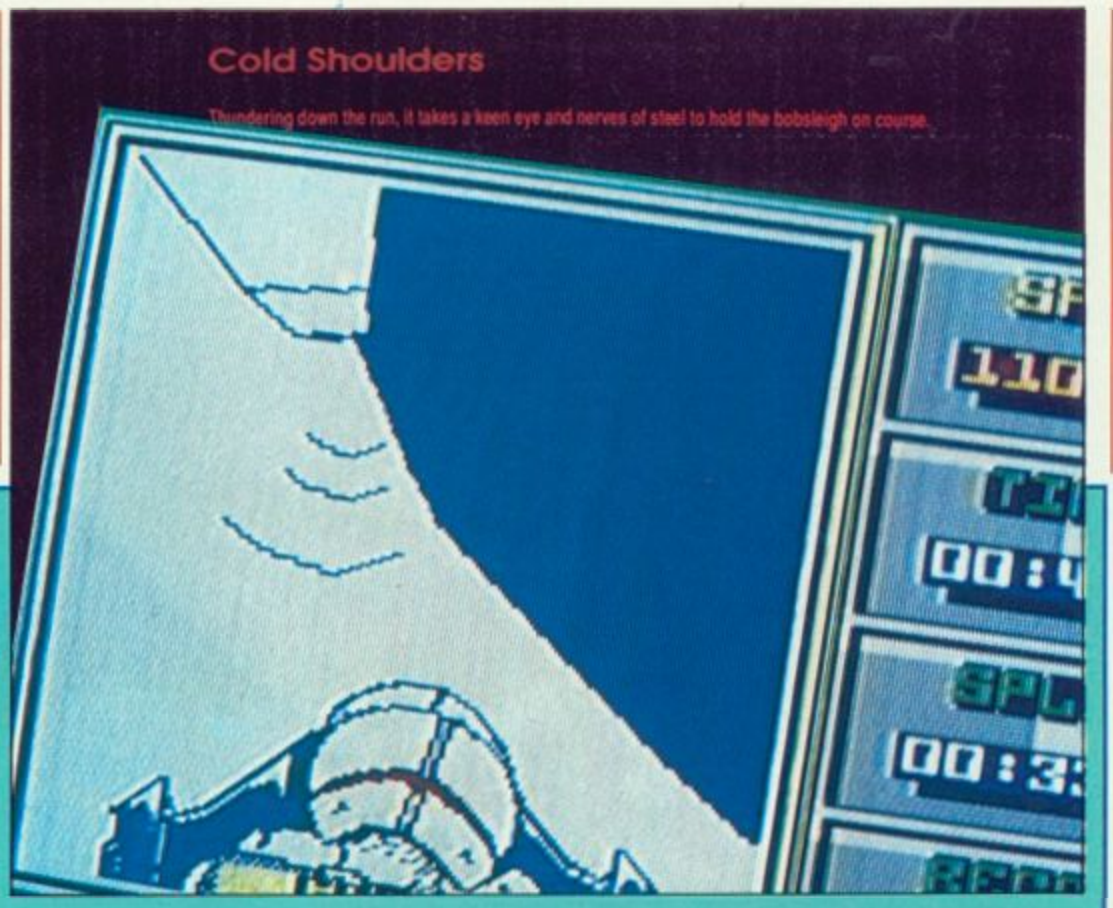


Fun – and it's certainly safer than the real thing – but it isn't demanding enough to really last the distance



Safely past the finish line. Hit the brake before you plough into the

You may get the impression that there is little to *720*. In fact, there are plenty of obstacles to hinder you. If you hang around too long you are attacked – inexplicably – by swarms of killer bees; cyclists, motorcycy-cyclists and pedestrians can take the wheels from under you; slurry pits aren't too healthy either; and if you get cocky you'll plunge from your board anyway. After visiting each of the parks in turn you move to the next level. Things get hard quickly. It's not long before you're stuck in the early-morning rush hour and the bees think you're the tastiest thing since Adam's apple. ● Richard Monteiro



ship money needed for the team's upkeep. Crashing a bobsleigh can be disastrous not only for your chances of a place in the winning top three but can hurt your wallet as well; repairs cost money but lost sponsorships can have you teetering on the brink of bankruptcy – and becoming bankrupt means you'll have to restart the game.

Before you start into serious competition, you can practice each run in whatever order you desire, which is helpful in familiarising the player with problem corners etc. You can then compete against other teams for just the one run which helps to give you an idea of how well you compare to them.

Getting to grips with the runs is, as you'd expect, tough. It takes a keen eye and sharp reactions to read the corners and find the path of least resistance which you need to follow if you're to achieve anything like the speeds needed to earn yourself a place on the leader board. Make sure you consult the weather reports before the start of a race; selecting the wrong runners for the bob' can lose you valuable seconds on a run.

Options to increase your team's fitness are included, and the idea is to waggle your joystick (or use the keys) as fast as possible; combined with having to waggle the joystick at the start of each race (simulates your team running with the bobsleigh to the start line) this can have you feeling physically tired at the end of a season.

Bobsleigh is a thrilling game with enough strategy involved to add another dimension to a highly competent and addictive simulation. ● Andy Smith

BOBSLEIGH

Ice screaming with DIGITAL INTEGRATION

ACE 901 RATED

Spectrum Version

Fast and furious, you get a real sense of speed on the Spectrum. All the action is well animated and controlling your bobsleigh properly takes a fair bit of practice. Sound is used well and adds to the impression that it's just you (and your team) versus the hard unyielding ice as you thunder down the run. Gripping, nail-biting stuff that is a thrill to play.

GRAPHICS	8	IQ FACTOR	6
AUDIO	8	FUN FACTOR	8

ACE RATING 901

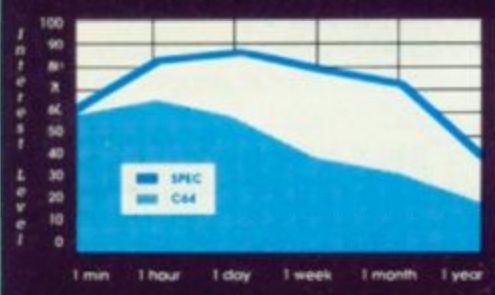
C64 Version

The menu options of the Commodore version are well designed and drawn and the music and other sound effects are superb. A shame then that the game itself is not so hot. You get no real feeling of control over the bobsleigh – it seems more a case of sit back and watch the action. All the options are there but it's just not so much fun on the C64 as it is on the Spectrum

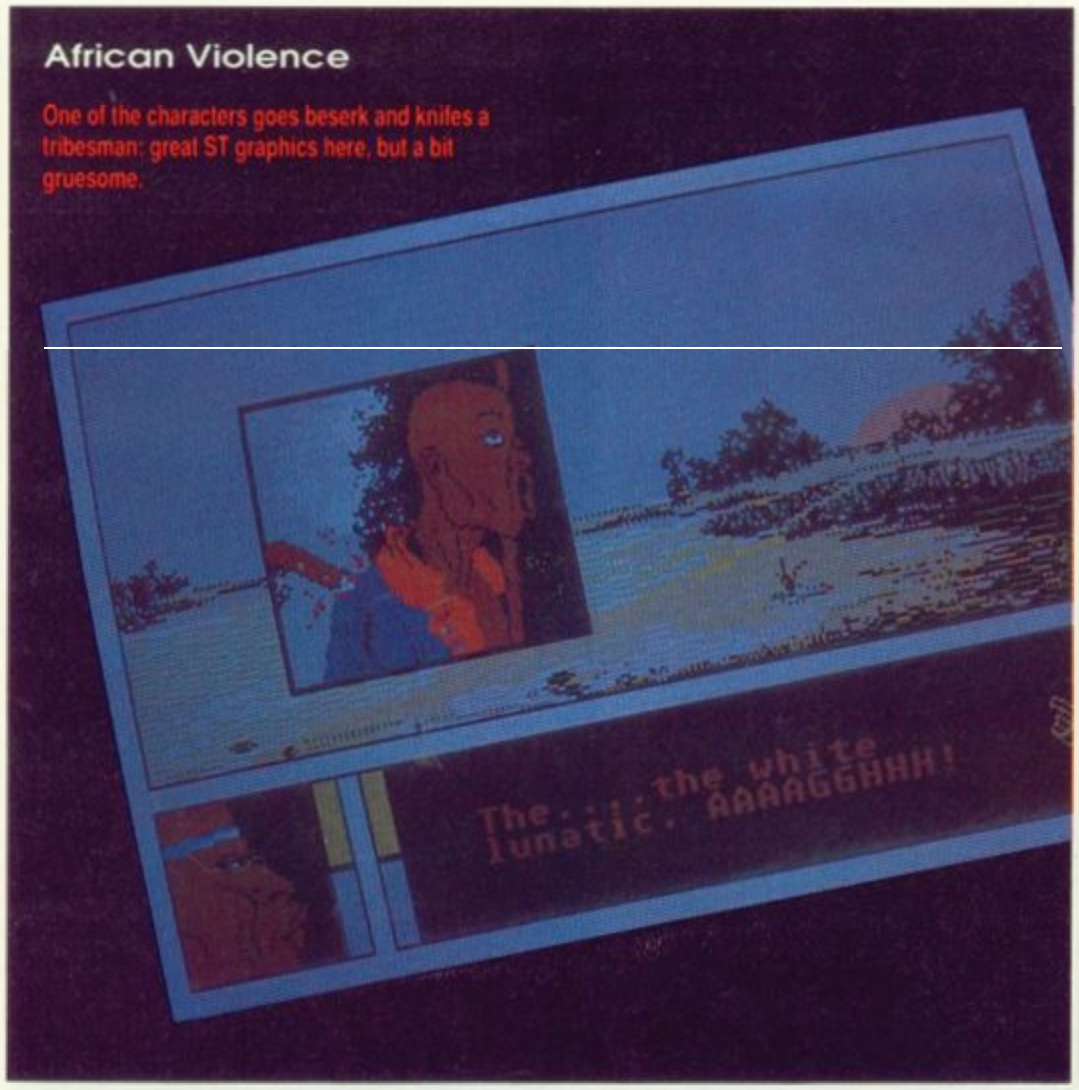
GRAPHICS	5	IQ FACTOR	6
AUDIO	6	FUN FACTOR	5

ACE RATING 567

PREDICTED INTEREST CURVE



Thrilling and addictive on the Spectrum once you learn the controls; on the C64 the poor controls and weak graphics spoil the fun



African Violence

One of the characters goes beserk and knifes a tribesman: great ST graphics here, but a bit gruesome.

PASSENGERS ON THE WIND

INFOGRAMES blow in from Africa

DAHOMEY was rather a rough place in the late 18th Century, *mes enfants*. The little West African kingdom had enough homegrown dangers for most people, what with lions on the prowl and a very short-tempered autocrat on the throne, but when your companions included poisoners, lunatics and slavers – well, you really did have to watch your step.

Yes folks, we're back with Isa and Mary, the central characters of *Passengers on the Wind*. Based on a classic French comic strip, the original game related a tale of intrigue and high adventure at sea with a graphic style that amazed British players and a game structure that left them baffled. *Passengers II* takes up the story, and the strange gameplay style, in Africa.

The first scene opens with one of the game's many beautiful screens, depicting the Dahomey village where King Kpenga holds an audience for Isa and her companions. It's then your job to try and help the story unfold. For the most part you control the plot by selecting one of the game's numerous characters in a small window below the main picture, and clicking on them with the pointer to make them speak. There's only occasionally any choice over what they say – it's mostly just a matter of piecing different people's speech together correctly to advance the plot.

As well as assembling dialogues in this way you can affect the plot directly by clicking on different parts of the main picture, setting action sequences in motion. You're never really controlling the proceedings in all this – just revealing a fixed story line. The actions are shown as panels overlaying the main picture, rather than as conventional animation. There's rarely any indication of where these sequences are possible, so you'll probably end up clicking 'dead' background an awful lot of the time just on the off chance.

Somewhere between a story and a jigsaw puzzle (and a long way from anything you'd normally call a game) *Passengers II* is very much the comic strip equivalent of Cinemaware. It's easily the equal of (say) *Defender of the Crown* visually, but Cinemaware's gameplay shortcomings are also in evidence – with a largish dose of confusion thrown in. The trial and error involved defeats what challenge it might have had as a game, but *Passengers II* has an undeniable (if short-lived) fascination.

● Andy Wilton

RELEASE BOX

C64/128	£12.95cs, £14.95dk	REVIEWED
ATARI ST	£19.95dk	REVIEWED
AMS	£12.95cs, £14.95dk	REVIEWED
IBM PC	£24.95dk	IMMINENT
AMIGA	£29.95dk	IMMINENT

Atari ST Version

The gameplay is effectively the same on all machines, but for colour and graphic resolution this is the best of the bunch (until the Amiga version turns up, at any rate) – and very nice it looks too.

GRAPHICS	10	IQ FACTOR	7
AUDIO	5	FUN FACTOR	2

ACE RATING 678

CPC Version

The CPC can't match the ST for graphics of course, but it comes pleasantly close here thanks to careful use of colour. The tape version's multiload can get a little tedious, and the lack of a mouse makes control a little clumsy.

GRAPHICS	9	IQ FACTOR	7
AUDIO	7	FUN FACTOR	2

ACE RATING 665

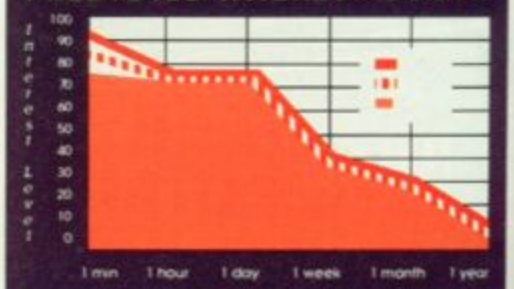
C64 Version

Graphically the poorest of the versions (though still a good-looking game) and also, of course, the slowest on disk.

GRAPHICS	8	IQ FACTOR	7
AUDIO	7	FUN FACTOR	2

ACE RATING 659

PREDICTED INTEREST CURVE



Graphics separate the versions at first, but without solid gameplay they all have a similar decline once the initial fascination wears off.

ROCKFORD

THE ARCADE GAME

MELBOURNE HOUSE

Setting New Standards
IN · COMPUTER · SOFTWARE

8-10 Paul Street, London EC2A 4JH · Telephone 01-377 8411 · Telefax 01-377 5569

ROCKFORD was designed and programmed by FERNANDO HERRERA conversions by ICON DESIGN © 1987 FIRST STAR SOFTWARE, INC.

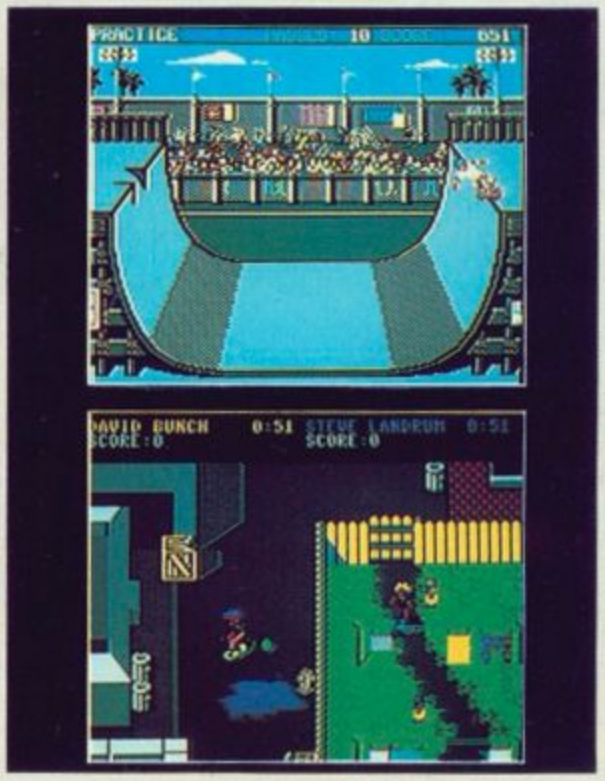
FIRST STAR SOFTWARE INC.

STOP PLAY GAMES. SK OR DIE!

Forget about games. Learn about events. Events are about competition. The Pool Joust, Downhill Race, Freestyle Ramp, High Jump and the Downhill Jam. Play alone, with a friend or pit your skills against Lester. Skate or die – it may be fun but its serious.

SMOKIN' THE HALF PIPE

Roar down the ramp and fly up the other side. Live on the edge where you go for rock 'n rolls, hand plants (shown here), leg plants, railslides, even methods. Get airborne for 720's, ollies, front & backside aerials, and tweaks.



SKATE & DESTROY

Karate chop your way down the baddest alley in the neighborhood. Smash up trash cans, bottles, fences, and the other guy. Rad skaters ramp off the cop car.

UNLEASH THE POWER OF YOUR IMAGINATION

Electronic Arts software is available on a wide range of home computers including Commodore C64, Commodore Amiga, Atari ST, IBM, Spectrum and Amstrad. Not all titles are available on every machine format. Electronic Arts products are available from good software stockists and especially where you see this sign.

ELECTRONIC ARTS®
AUTHORISED DEALER

For a full broadsheet describing the complete range or information on your nearest stockist write to: **Electronic Arts, 11-49 Station Rd., Langley, Slough, Berkshire SL3 8YN.** Or call our Customer Services Dept. on **0753 46465.**

ELECTRONIC ARTS™

NEBULUS

ACE 943 RATED

Towering originality from HEWSON

BRAVE new game formats are rare things these days, and difficult to come up with too. That must make programmer John Phillips a pretty hot property: after the unusual true 3D and sideways motion of *Impossaball*, he's just delivered this strikingly unusual rotary masterpiece.

The basics of the game are simple stuff indeed: eight cylindrical towers project from the ocean, and you have to destroy them. To do this you must guide your little character Pogo to the top of each tower, causing it to telescope down into the sea. A spiral of platforms, ledges and lifts form your route up the outside of the tower wall, along with several tunnels directly through the tower's axis. It's no picnic: gaps between (and disappearing blocks in the middle of) ledges have to be jumped, and nasties in your path need shooting or dodging.

These immediate problems will have to wait for the first few games, because the chances are you'll just be staring at the screen in wonder. As soon as Pogo starts to move, you'll be struck by the startlingly odd way *Nebulus* handles his movement around or through the tower. As he walks along ledges the game keeps him in full view by rotating the tower behind him, platforms and all. This 'rotary scroll' is dazzlingly original stuff even on small movements, but *Nebulus* can do better: if Pogo steps into a tunnel, the tower spins through 180 degrees to show him popping out the other side.

Graphic ingenuity isn't enough by itself of course, but you'll find that the gameplay too is solid stuff. Though based on conventional timing and jumping problems, *Nebulus* has subtle twists to it that make for real addiction. For one thing, most nasties don't kill you outright: they merely knock you off your ledge, lift or whatever. If you're still fairly low down the tower (or just unlucky) you'll fall into the water and drown, losing one of your three lives.

Once you've climbed to a decent height the worst you have to fear is a tumble onto a lower platform forcing you to cover the same ground again – but this is quite bad enough. You scale each tower against a time limit, so the delay involved in climbing back up can cost you dear as well as drive you wild with frustration. There's a certain amount of slack in the time allotted for each tower, but a few falls soon eat this up and running out will cost you a life.

With practice you can get past (or shoot) the towers' nasties fairly reliably – though the timing can be very demanding in places, especially on the Spectrum version – but that still leaves you with airborne baddies to deal with. These flying nasties turn simple problems into death-traps if they appear at the wrong moment. Waiting on lifts or dodging into tunnels can save your bacon here, but you'll need to plan ahead a little.

Nebulus strikes a fine balance between frustration and addiction, and should keep you occupied for months even with only eight towers to climb. Add in the flair and originality of that rotary scroll and you've got a good-looking, playable winner of a game.

● Andy Wilton

RELEASE BOX

C64/128	£8.95cs, £12.95dk	OUT NOW
SPEC	£7.95cs	OUT NOW

C64 Version

Bright, smooth and fast-moving, the C64 *Nebulus* is a joy to behold as well as to play. There's an extra between-levels sequence where you catch fish for bonus points en route to the next tower, but the tremendous parallax graphics and variation of pace this offers are just icing on the cake: the main game's good enough not to need it.

GRAPHICS	9	IQ FACTOR	8
AUDIO	7	FUN FACTOR	7

ACE RATING 943

Spectrum Version

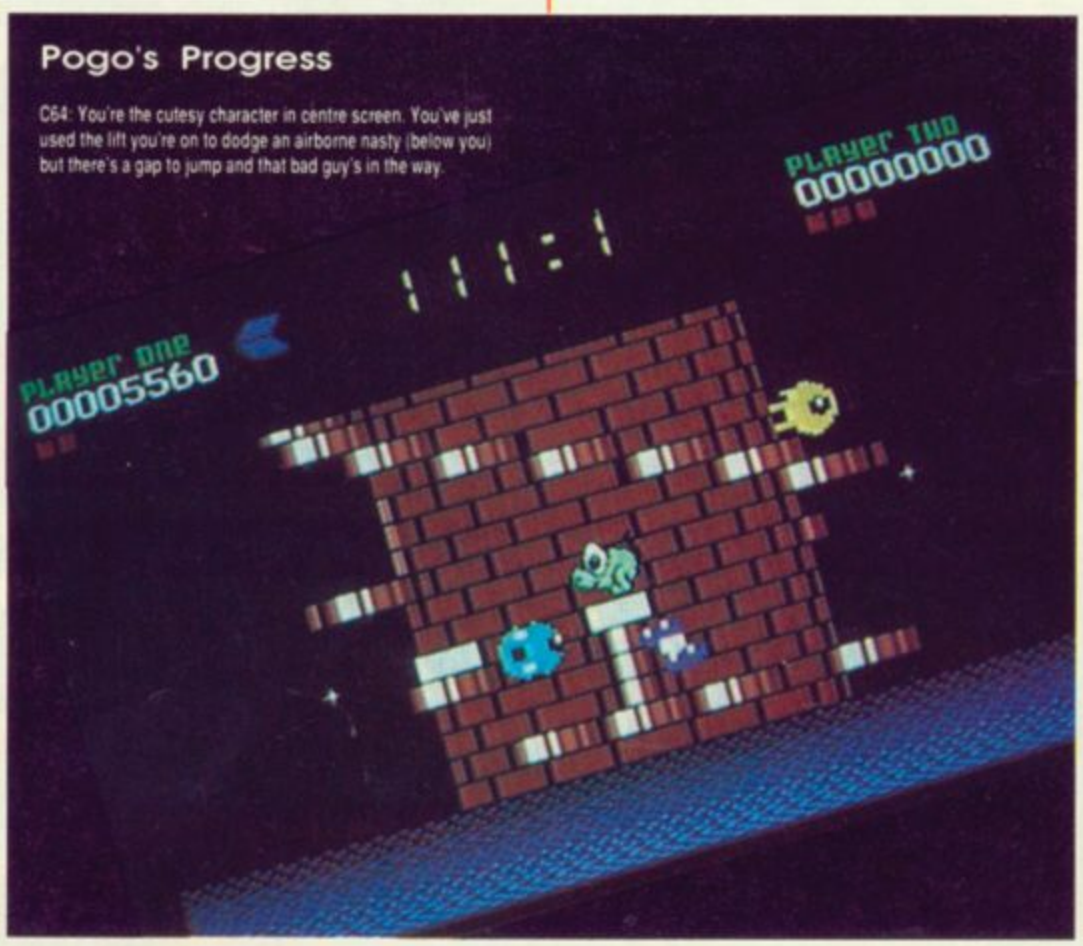
Though it obviously can't match the C64 version for colour or sound, the Spectrum *Nebulus* is very nearly as fast and every bit as addictive. No fish to catch between levels, but it's still a cracker of a game.

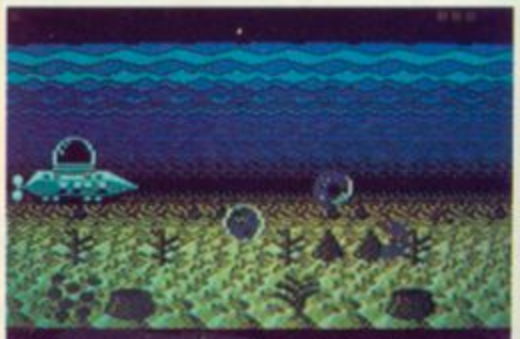
GRAPHICS	8	IQ FACTOR	8
AUDIO	4	FUN FACTOR	6

ACE RATING 917

Pogo's Progress

C64: You're the cutesy character in centre screen. You've just used the lift you're on to dodge an airborne nasty (below you) but there's a gap to jump and that bad guy's in the way.





C64: Between towers, you can shoot and catch fish for bonus points. Spectrum owners eat your hearts out!

PREDICTED INTEREST CURVE

Great graphics and gameplay give both versions real initial impact, but with only eight towers the fun can't last forever.

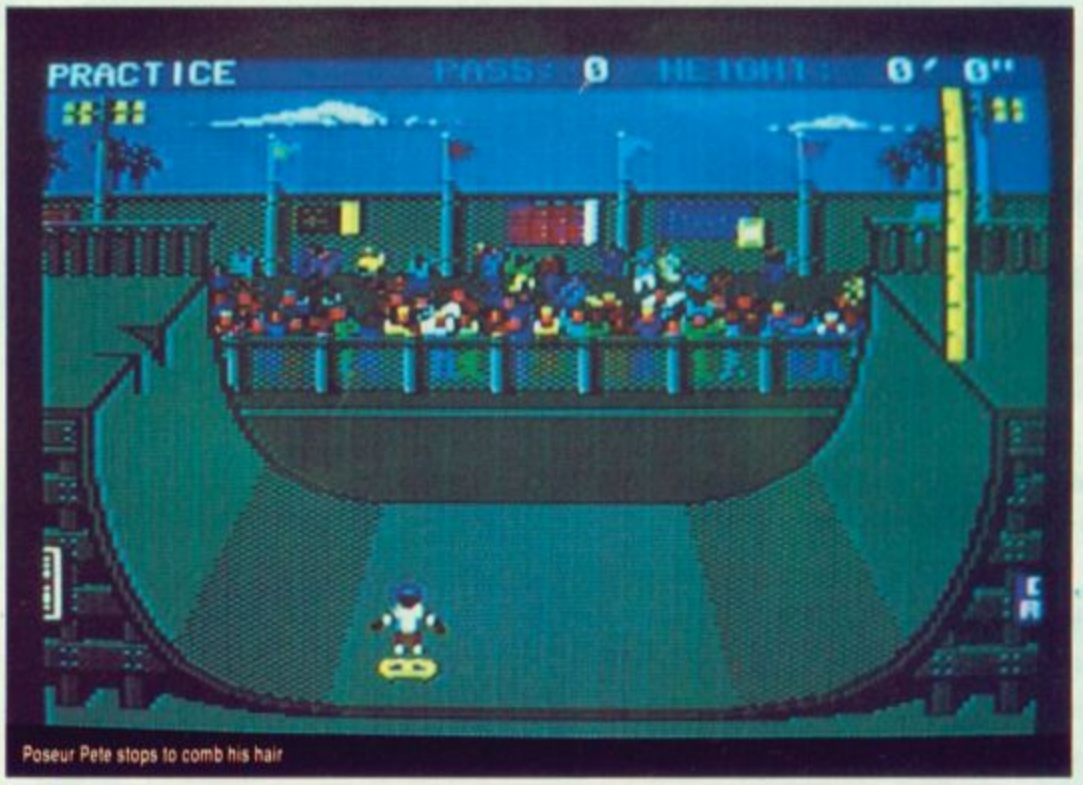
SKATE OR DIE

Ollies and plants with ELECTRONIC ARTS

PACK your pads, board and wheel grease and head on down to Rodney's skate shop. There you'll meet the coolest has-been in town – Rodney, of course. He sure knows how to handle his board. Can you say as much? If not, you'd better head for your local rag store and purchase Psycho Skateboards Daily, otherwise you'll end up as another pretty pattern on a board. Enter the mean city; skate or die.

If you intend leaving your mark on the city then sign in at Rod's shack. There's room for you and seven other competitors. Then it's either a practice roll round town or a head-to-head in five gruelling events. You're safer to stick to practise mode: after all you'd look a ripe prune if you hit the streets with a pink board and no hope of changing your image until five events later.

RELEASE BOX		
C64/128	£9.95 cs, £14.95dk	OUT NOW
No other versions planned		



Poseur Pete stops to comb his hair

Leave Roddy's parlour and cruise around six spray-painted streets; skate down the one with the event of your choice scrawled over it. The fun starts.

The first event – if you choose to compete in all five – is the Freestyle Ramp (a hundred feet of wood and steel moulded into a wide U-shape). Jump on your board and strut your stuff; ollies, Rock-n-Rollers and kickturns if you're hip (and if you can't figure out what they are, look at the Skater Speak box). But if you're really cool you'll also manage an open eye for the Betties. Try to be too flash and you will crash through the ramp – not a pretty sight.

Skater Speak

Aerial – the board is in the air during this move.
Bail – when you mess up and get ready to fall.
Betties – women.
Bio – spectacular skating.
Handplant – when one hand is on the board and the other on the ground.
Ollie – an aerial trick without the skater touching the board.

Next on the list is the High Jump: another U-shape ramp. Only this time you've got to waggle fast and hard to get you and your board tens of feet in the air. A mean tournament, especially if you jump at the wrong moment.

Nothing is out to stop you in the third contest. It's just a casual jaunt in the Downhill Race; a race against time. On the way to the finish line you can go on, over, through and along objects. Stay on your board and gain a shower of points.

It's you against an opponent in an hilarious, mad dash to the finish line in the Downhill Jam. Anything goes: ride over flower pots, smash bottles and tip over trash cans. While doing this you must try and unbalance the other party by booting him in the head, stomach or other painful regions of the body. But also take care you don't slam into buildings or thunder through fences (you'll end up quartered if you do).

The last event, Pool Joust – in which two players enter, but only one comes out alive – is simple: one person moves rapidly round the rink trying to dodge the other stick-brandishing thug. If the first player manages to get from one side of the ring to the other, four times, without being hit then the stick is his. This carries on until someone gets splattered.

Skate or Die is highly entertaining and varied. The graphics and animation are exquisitely detailed; and the characters look in great pain when you do something wrong. By far the best in the recent skateboard game craze.

● Richard Monteiro

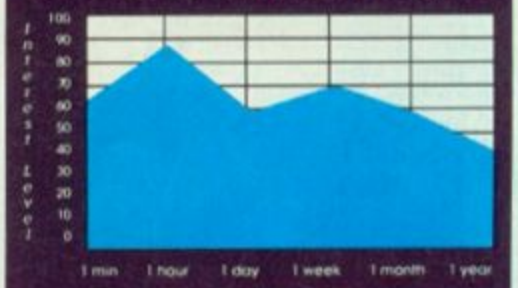
C64 Version

There are some stunning graphics and animation on show in *Skate or Die*; you really get a sense of the skateboarding life as the character you control jiggles around to stay on board. The action's accompanied by an enjoyable tune with some nice effects. You don't have to be Brain of Britain to compete... but who cares when it's such fun?

GRAPHICS	9	IQ FACTOR	4
AUDIO	7	FUN FACTOR	9

ACE RATING 878

PREDICTED INTEREST CURVE



Witty and entertaining, Skate and Die is good enough to merit a lot of return trips in the months to come.

PLAY TO WIN

Mirrorsoft – **personal computer software** – State of Mind. Our **policy** is to publish **high quality** programmes across a **wide range** of **computers** and for a **wide range** of **interests** and **applications**. We've **got** what it **takes** – Cinemaware. Mirrorsoft. Mindscape. Three-Sixty. FTL Games – **Can you** take what we've **got**?

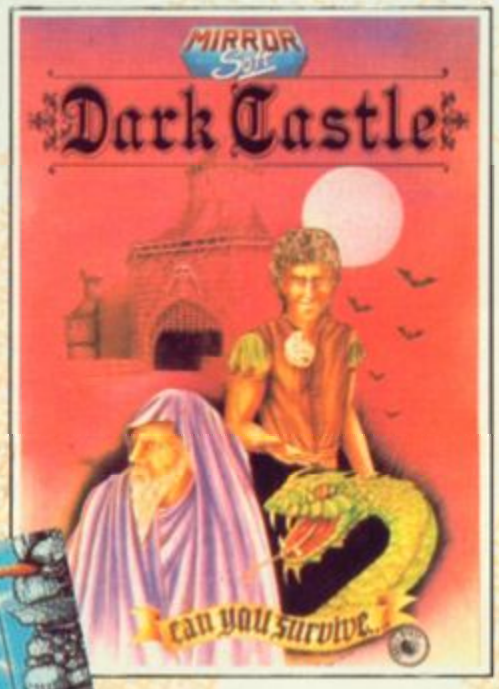
MIRROR Soft

MIRROR Soft

MIRROR Soft

DARK CASTLE

Fresh from the USA, ... **Dark Castle** will take you on a **macabre journey** ... through **halls** and **dungeons**... as you search for the **Black Knight** ... Computer Gaming World **wrote**... "Perhaps the **best arcade game** on any computer **ever**." ... PC, Amiga, ST **now**... 8 bit **soon**...



STATE OF ACTION

MEAN STREAK

Fast moving... all out **arcade action** for ... one or two **players**... and **meet** the **perils** of the **Battletrack** headon... and **unleash** your **Mean Streak**!!!... C64, Spectrum...

STATE OF ACTION

ZIG ZAG

Tony Crowther is **back**,... and **how!**... Challenge the awesome **Matrix of Zog**... in this **Zzap Sizzler** ... and **Commodore User Screenstar**... C64...

ACTION

For free mail order catalogue please write to us at address below

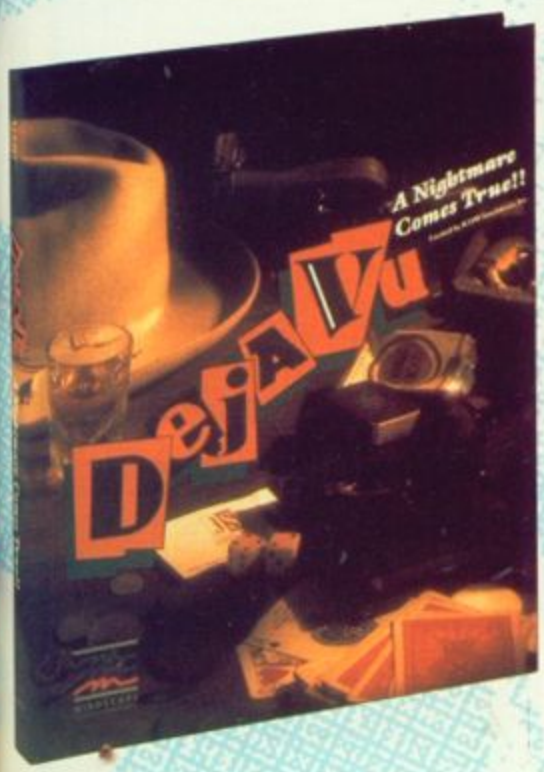
The **publishers** reserve the **right** to alter the **prices** and specifications **without** notice. Please **check** prices and **availability** before ordering.

Mirrorsoft Limited

Athene House, 66-73 Shoe Lane, **London** EC4P 4AB

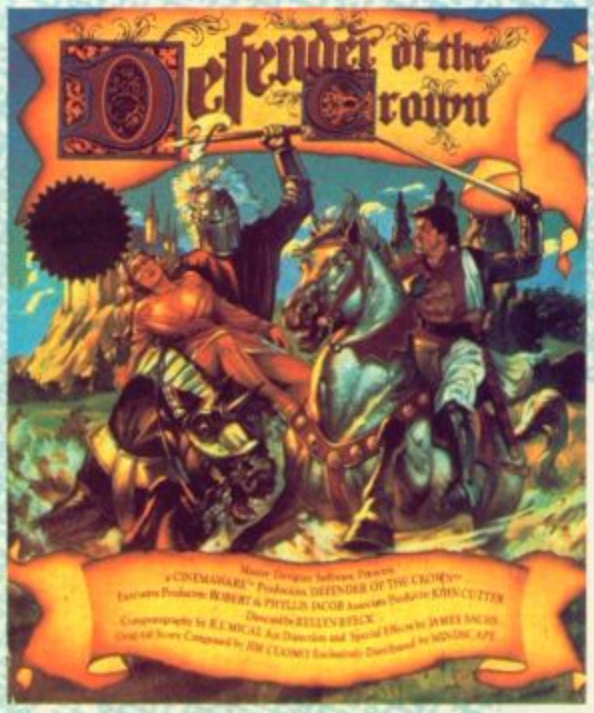
Telephone: 01-377 4645 **Fax**: 01-353 0565

Telex: 9312100112



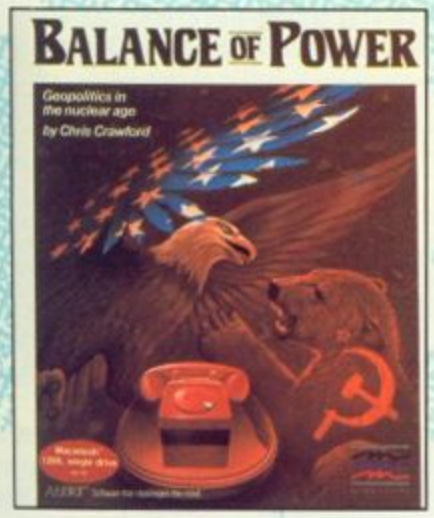
DEFENDER OF THE CROWN

"Defender of the **Crown**...has set a **standard**...that others will be **hard pressed** to meet..." Computer and Video **Games**...Amiga, PC, ST – C64...**New cassette version** available...



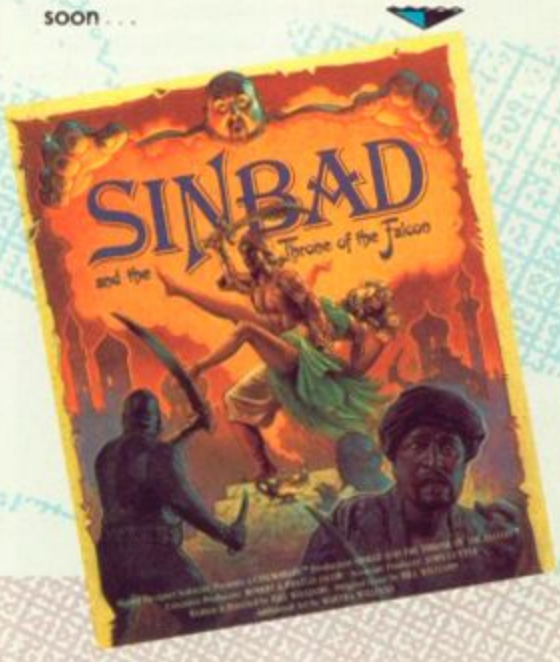
DEJA VU

Set in a **sleazy underworld**...distinctly reminiscent of **Raymond Chandler**,...**Deja Vu** is like **no other** adventure you've ever **experienced**...ST, C64...



SINBAD AND THE... TALONS OF THE FALCON

"A game to **challenge anything**...on the market...at the moment" **Personal Computer World.** Amiga now,...**PC ST C64** soon...

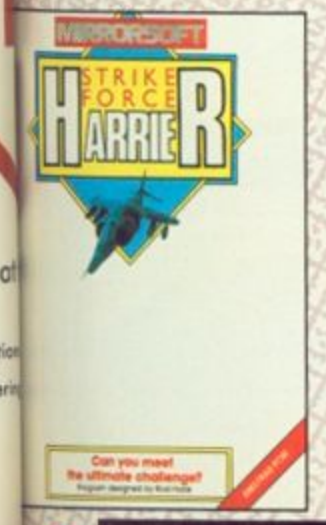


BALANCE OF POWER

"One of those **games**...any serious **games player**...cannot be **without**"...Popular Computing Weekly...**PC, ST, Amiga**...

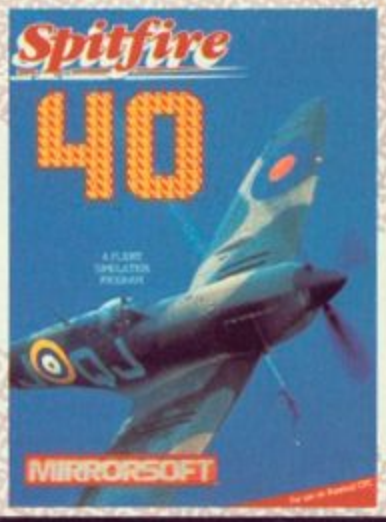
KING OF CHICAGO

Pit you wits...against the **legendary Capone mob**...in a **deadly battle**...for the control of the **Windy City**...**Amiga** now,...**PC, ST C64** soon...



STRIKE FORCE HARRIER

The most **realistic** simulation yet...of **flight** and **combat**...in one of Britain's most **exciting fighter planes**...CPC/PCW, ST, BBC/Electron, C64, Spectrum **now**, Amiga **soon**...



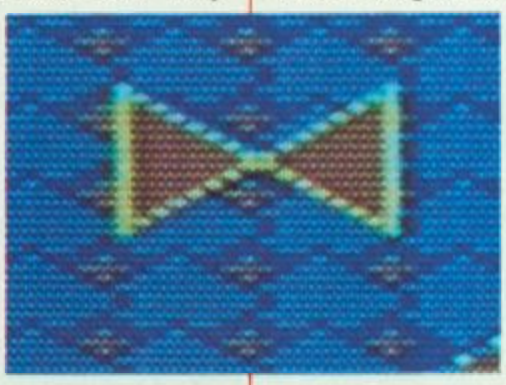
SPITFIRE 40

Fly the most **famous** warplane of all...and **save** your **flight** log...Rise through...the **ranks** of the **RAF** towards...the **coveted** title of **Group Captain**,...DSO, DFC, VC, CPC, **Atari** XL-XE and ST,...C64, BBC/Electron,...Spectrum, MSx. **New improved** ST version...coming soon...

ZIGZAG

Ducking and diving with MIRRORSOFT

RAMMING a spaceship into objects in order to change its direction isn't generally considered a good idea. However, in this latest from Tony Crowther it's positively essential to go bouncing off things like a flea in a pinball machine.



The 'awesome' Matrix of Zog is where all the bone-jarring collisions take place, as you search for the eight crystals of Zog hidden in the 1,400 screens. At its simplest that's what the game is – just a matter of exploring and collecting. What makes it interesting is the weird way you get around and the many strange features encountered on the way.

You can fly left and right in a corridor and alter height as well, but you can't turn around or turn a corner without some assistance. Triangular blocks are placed at many junctions and by ramming them you can alter the direction of the ship through 90 or 180 degrees, depending on whether you hit the angled or flat part of the block. Ramming walls will also turn you around. Neither action causes any damage to the ship.

The corridors are populated by several breeds of nasty aliens. Homers home in on you, while attracters draw you towards them instead. There are also bouncers, drifters, corkscrews and cubes to look out for. Most of these guys can be deadly if rammed or if they hit you with their missiles. If you do die then you're returned to the starting position.

Shooting the aliens earns money which can then be spent if you find a shop zone. They're found at the end of cul-de-sacs and when you fly into them it presents a menu of additional features for the ship. Each feature costs a varying amount of money, from U-turns at the cheapest level to extra lives at the most expensive. Other powers are zapps, maps, missiles, shield, raiser, infra-red and x-ray.

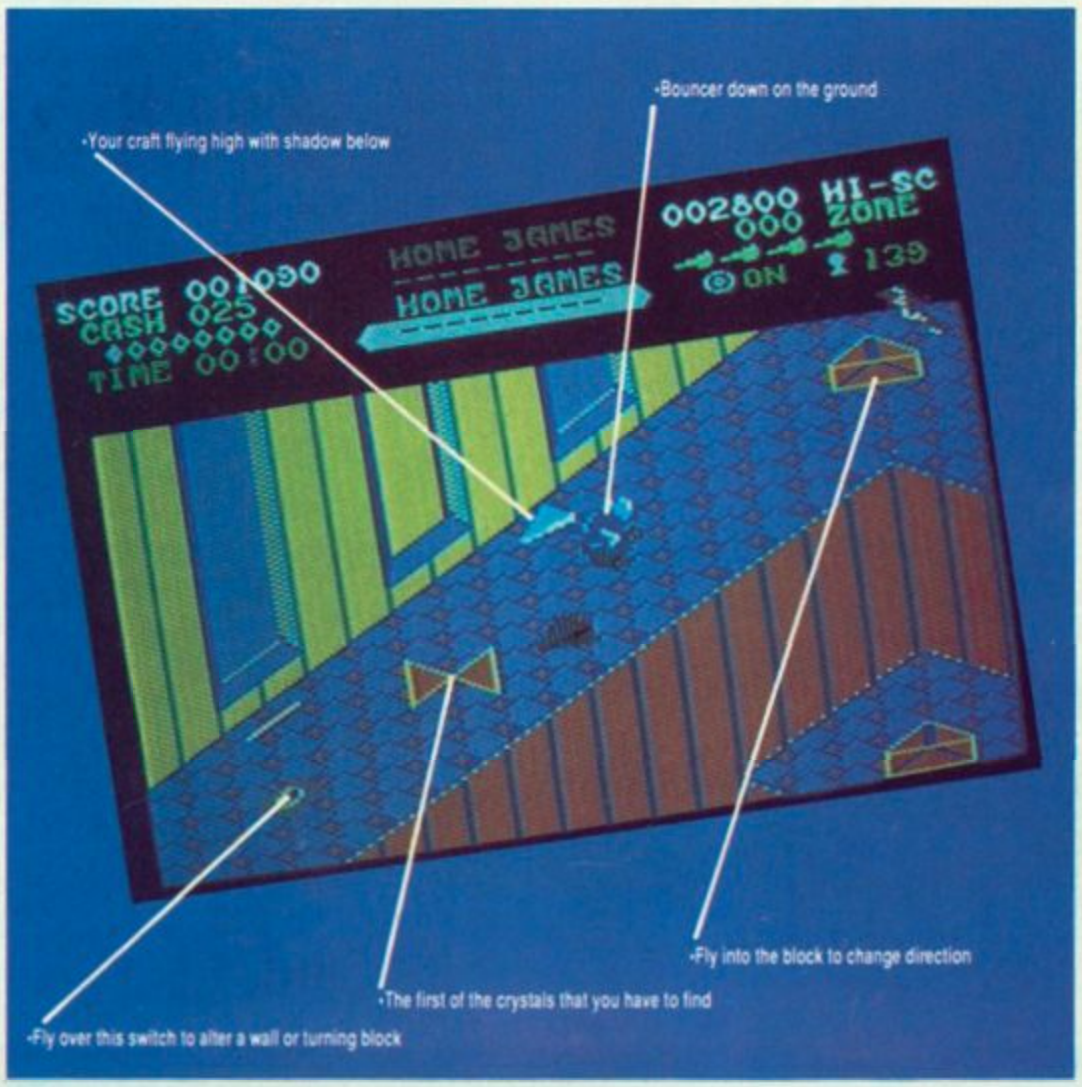
The maps show the zone you're in, infra-red and x-ray respectively enhance vision and allow you to see through walls. All the powers are useful to one extent or another but are lost if you die.

Other features which add to the puzzle nature of the game are switches that create or remove walls and blocks when flown over or shot. Additional restart points can also be found to prevent you having to fly all the way back from the start.

At first the concept is very intriguing, particularly as the features and their uses are discovered. But it quickly becomes a matter of exploration and zapping rather than one of puzzling. It's certainly a massive task to find all eight crystals and it's going to be a monster to map, but it may not hold enough surprises in the long run.

● Bob Wade

The matrix is viewed from a Zaxxon-type perspective, scrolling diagonally to keep the ship centred on the screen. The matrix is entirely composed of corridors connected by right-angled turnings. In places the corridors narrow and have ramps forcing the ship upwards.



C64 Version

A tongue in cheek list of credits done movie style start things off, accompanied by some bop-along Crowther music. The graphics are OK but there isn't anything spectacular, although the scrolling is very neat. Sound effects are limited to blasting and explosions.

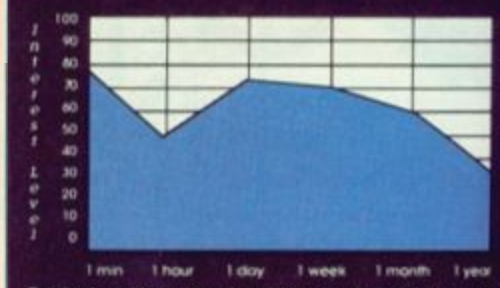
GRAPHICS	7	IQ FACTOR	5
AUDIO	6	FUN FACTOR	6

ACE RATING 783

RELEASE BOX

C64/128	£9.95cs, £12.95dk	REVIEWED

PREDICTED INTEREST CURVE



Fascination with the control methods turns to confusion as you ponder your task; once you discover what's going on it's plainer sailing

THROUGH THE TRAP DOOR

Cartoon capers from PIRANHA

BERK and Drutt, the two cartoon cuddlies, are back with a vengeance. *The Trapdoor* had you controlling the wonderfully animated Berk in the dingy corridors of the Bad Tempered Thing's castle. The sequel not only lets you manhandle larger-than-life Berk, but also his bouncing buddy Drutt. The adventure starts when hapless Boni (the skull) gets plucked from his abode, and subsequently taken to an underworld by a headless bat. Both Berk and Drutt must travel through four underground regions to recover their pal.

You have 16 lives with which to hunt for Boni. It sounds like a lot, but there are many hazards and you lose a life roughly every 90 seconds. Berk, the large blue thingamiwatsit, is the main character. Drutt just bounces around satisfying his craving for worms and occasionally, with great trepidation, gets Berk out of a hot spot.

The four regions are fraught with dangers and puzzles. There are pits, icicles, bats, and other menaces to dodge. The task usually involves locating a key and taking it to the nearest door – it is in this manner that you pass to the next stage.

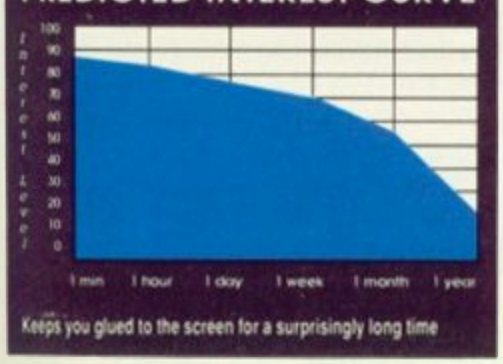
As with the original, the graphics are bold and superbly animated. Berk's facial expressions have to be seen to be believed. And Drutt, who insists on gobbling every passing worm, is cute in his own special way. The tasks are harder than the original, but could still do with a little tweaking. A game worth getting if only to watch the big, bumbling characters.

● Richard Monteiro

RELEASE BOX

C64/128	£8.95cs, £13.95dk	DEC 87
SPEC	£8.95cs	OUT NOW
AMS	£8.95cs, £13.95dk	DEC 87

PREDICTED INTEREST CURVE



Keeps you glued to the screen for a surprisingly long time

SpectrumVersion

There's some tremendous animation fo the large cartoon-like characters on the Spectrum. Sound is little more than the odd pleasing effect, but this doesn't really detract from the fun or the enjoyably tricky puzzling.

GRAPHICS	8	IQ FACTOR	6
AUDIO	5	FUN FACTOR	9

ACE RATING 824

Berk and Drutt look on as the headless bat takes Boni off to the lower regions

WEREWOLVES OF LONDON

Fancy a bite of VIZ DESIGN's latest?

WEREWOLVES features sound effects which include that catchy song of the same name by Warren Zevon – and it will be this rather than any other aspect of the program which might tempt you back to the game.

It's presented on the 'no instructions – work it out for yourself' format, but basically you must explore London, collecting potentially useful objects which will enable you to open manhole covers, or shine a light as you roam the sewers. By night you transform into a werewolf and attempt to keep your levels up by attacking people.

As far as gameplay goes, there's an awful lot of trotting about screens which all look exactly the same. The objects may be useful in the end, but at first you need to work out what they are – a swiss roll, electric toothbrush? – as the graphics are certainly not all they should be, and animation perfunctory.

● Christina Erskine

There you are in werewolf guise looking for Sloaney blood

RELEASE BOX

AMS	£9.99cs, £14.99dk	OUT NOW
SPEC	£8.99cs	DEC 87
C64/128	£9.99cs, £12.99dk	DEC 87

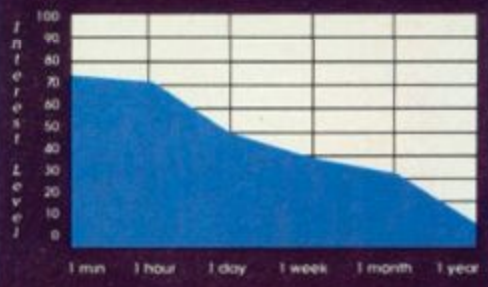
Amstrad Version

Despite the nice touches – eating Sloanes can be good fun – Werewolves just doesn't have the depth or the interest to make the grade.

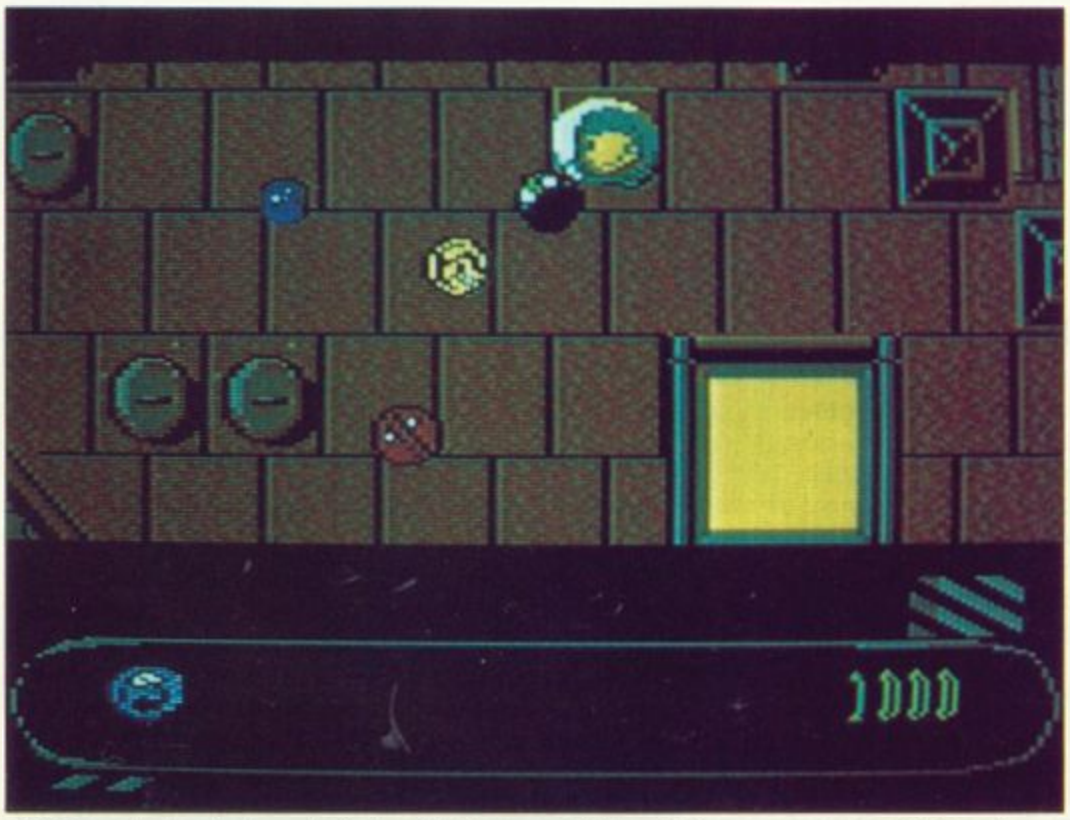
GRAPHICS	6	IQ FACTOR	5
AUDIO	7	FUN FACTOR	5

ACE RATING 573

PREDICTED INTEREST CURVE



The lack of depth makes it difficult to maintain any long-term interest



Dust Brain has already captured one madball and now he's after a green and black one. Nearby are an egg and a large yellow trampoline.

MADBALLS

Battling balls bounce in from OCEAN

MERGER, compromise, elections and voting are unknown terms on the planet of Orb. If you want political power then you're going to have to get out there and bash a few balls around to get it. After all, you're a Madball and that's what you do best.

As in all political struggles there's more than one candidate for the post of leader. There are seven other Madballs doing an excellent impression of the SDP leadership struggle, as well as a pack of Beaurocrats doing a tiresomely good job of getting in the way and generally fouling things up for you.

The surface of Orb is a brown complex of interlinked platforms, surrounded by a sea of grey conformity. The multi-directional scrolling view is from overhead, so the balls get larger and smaller, as they bounce up and down. The Madball sprites are recognisable mainly by their colours, but the facial features aren't quite distinctive enough to differentiate them.

Initially you are in control of Dust Brain, a mid-range Madball in terms of speed and strength. The other seven MB's (Member of Ball-iment) have equally flattering names like Swine Sucker, Slobulus and Freeky Fullback. They have different speed and strength ratings which affect their manouverability and performance in combat.

A spinning pole (opinion poll?) indicates a ball's energy level, which is supplemented by bouncing on items of garbage that pass for food on Orb. Running out of energy won't kill the ball but it does make him more vulnerable to attack.

To capture another ball you simply have to bump him off the platform and into the grey area – the goal. You can do the same to the beaurocrats for points. Once a madball is captured you can switch control to it at open dustbins. It will also come into play if you get bounced into the goal, acting as an extra life.

There are several areas in the game, and only one ball will be found in each. The areas are connected by yawning holes which you can bounce down, exiting into the next area via a dustbin.

To bring some variety to this tough political lobbying there are many features that affect the ball. Trampolines, springboards, tyres and catapults can all give you extra bounce to clear gaps, but using them directionally is often difficult. Ramps, pyramids, dustbins and oil slicks can send you spinning off course and into danger.

One cute and totally inexplicable feature is the fried eggs, which, when bounced on, release chickens who can be squashed for bonus points. Bubbles come in for similar treatment with the same bonus points result. However, whatever you do, don't bounce on the mousetraps or your political career will deflate faster than Cecil Parkinson's.

The gameplay is absolutely manic as you find yourself fighting the joystick the whole time trying to stay in play or bounce an opponent out. This makes it addictive and infuriating, a deadly combination because you keep having one more go and get more frustrated every time you die. Something has to give eventually – the joystick, the game, your mind...

The main drawback is the element of frustration at dying and having to repeat conquests of the other balls. It's not a serious problem, but along with the drab graphics it takes the edge off the game. I conclude that there is only one difference between Earth and Orb politics – one has party political broadcasts that put you to sleep, the other will give you many sleepless nights.

● Bob Wade

RELEASE BOX

C64/128	£8.95cs, £12.95dk	REVIEWED
SPEC	£7.95cs	IMMINENT
AMS	£8.95cs, £14.95dk	IMMINENT

Madball Roll Call

There are eight candidates for leader of Orb. These are their credentials:

	A	B	C	Food
Freeky Fullback	1	8	6	Coke and melons
Swine Sucker	2	7	8	Anything
Slobulus	3	6	7	Fish heads
Dust Brain	4	5	5	Blood
Fist Face	5	4	2	Bones
Horn Head	6	6	7	Cabbages and fruit
Skull Face	7	1	1	Cabbages
Screamin' Meemie	8	2	3	Coke

A= Speed B= Strength C= Hunger

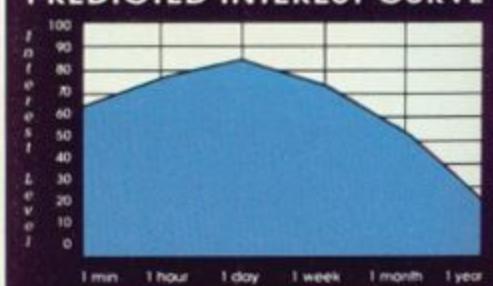
C64 Version

The graphics are disappointing, lacking colour and detail. The backgrounds are drab and the Madballs are fuzzy faced so that they lack personality. But the spot sound effects are wonderful: a different bounce noise for every ball and terribly plaintive noises from the poor chicken.

GRAPHICS	5	IQ FACTOR	2
AUDIO	7	FUN FACTOR	9

ACE RATING 826

PREDICTED INTEREST CURVE



The instant fun makes this the most enjoyable politics since the Watergate business

AIRBORNE RANGER

Hit the silk MICROPROSE style

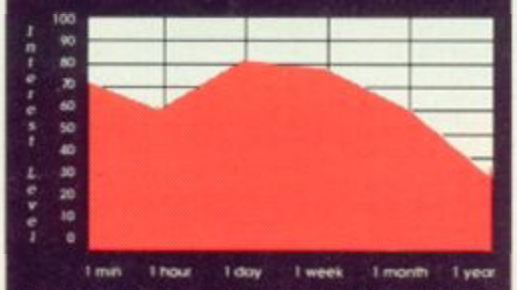
C64 Version

Ranger boasts some crisp and colourful graphics. the gameplay is tough to get to grips with but does become easier with practice. The ability to save positions and character qualities means you can volunteer to fight a campaign and hope to get your character promoted to Colonel. You'll find yourself in some pretty tight spots which require a quick trigger finger, while at other times you'll need to think on your feet and work out your plans very precisely.

GRAPHICS	8	IQ FACTOR	5
AUDIO	7	FUN FACTOR	7

ACE RATING 801

PREDICTED INTEREST CURVE



Gameplay is pretty demanding to start with, but it picks up as you get to grips with it and then holds you for quite some time.

HAVE you ever fancied yourself as an elite soldier operating behind enemy lines for the U.S.A ? If so, then now's your chance.

Microprose will fly you into enemy territory where you can parachute behind enemy lines and attempt to complete a number of hazardous missions varying from capturing enemy officers to cutting enemy gas supplies.

The general idea is to fly over enemy territory, drop supply pods that you may need during the operation, then when the light turns green, launch yourself from the aircraft and guide your parachute to the ground. This part of the game is viewed directly from above and only lasts a few minutes, but once you touchdown the view changes to show your ranger in the middle of a screen which scrolls around him as he runs, walks and crawls on his mission.

From here on in it's up to the player to complete the mission and make his way to the pick-up point to be rescued. Of course the enemy have been alerted and will be hunting you down, so quick reactions are needed in order to survive. Controlling the character involves moving him in one of eight directions, while he can fire in any one of 32 directions.with a choice of weapons. Replenishments are available – if you can ever reach the supply pods.

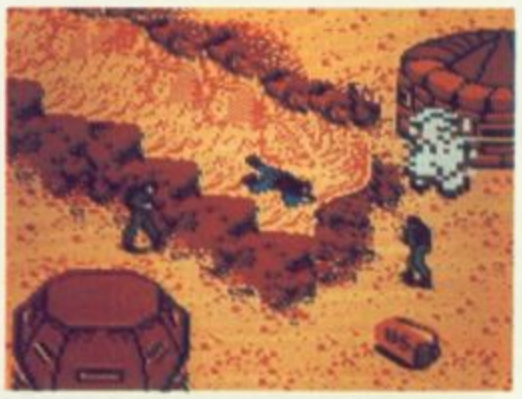
Airborne Ranger is not one of those instantly playable *Commando*-style jobs, but a game which takes a while before the fun begins to shine through. When you do get the hang of it, it can become a gripping and demanding task.

● Andy Smith

RELEASE BOX

C64/128	£14.95cs, £19.95k	OUT NOW
SPEC	UNDECIDED	FEB 88
AMS	UNDECIDED	FEB 88
ATARI ST	UNDECIDED	FEB 88

Action Man!



Crawling through trenches under fire from machine gun emplacements is not everyone's idea of fun. Good job it's only a simulation.

PHOENIX

INFOGRAMES dodge the black holes

NAVIGATING the space lanes and shooting the occasional gun turret may sound like boring stuff, especially where the lanes in question are flat or tubular lattices of oblong tiles. But when large holes and other lethal obstacles are the rule rather than the exception – and you can't slow down to avoid them – boredom is unlikely to be one of your problems.

Frustration, on the other hand, certainly will be.The only way to stay alive in the game is by dodging from one row of rectangles to another as the whole lattice zooms towards you. The vectors here are slick and the feel of movement is mostly convincing, but the strict pilot's eye view – your ship isn't visible on the screen – causes a few problems judging where your ship actually is.

Telling which row you're on is easy – the lattice rotates or moves sideways under you as you push left or right on the stick so as to keep you central – but telling how far you've got along the tile you're on is another matter. Swing left or right before there's a tile alongside you and you're dead. Run off the end of a tile into blank space because you waited too long and again you're dead. The timing isn't actually too tight, but you've got an awful lot of steering to do and you're back to the start of the level every time you die. Since you've only got three lives anyway, this clearly isn't going to be a picnic.

There are other hazards aside from blank space: purple tiles and lashing tiles kill you outright, as do gun turrets if you ram them; light blue tiles and shots from gun turrets drain your energy; and green tiles send you out of control for a few precious seconds. It's not enough to dodge these though – you've also got to positively seek out the orange tiles that top your energy up.

Later features add complications – black holes are particularly nasty – but the overall game remains simple, addictive fun

● Andy Wilton

Those red tiles keep your batteries toppped up, so it's worth your while going for them.

RELEASE BOX

ATARI ST	£19.95dk	OUT NOW

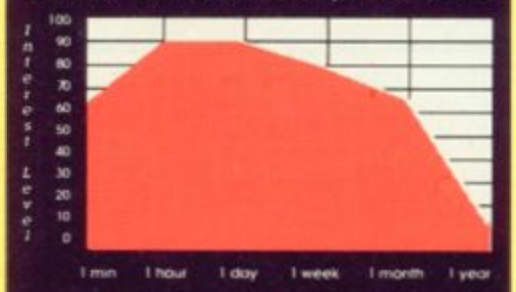
Atari ST Version

Nice vector graphics, if not exactly smooth. The flashing squares are almost impossible to make out, but that's right in keeping with such an irritatingly playable game.

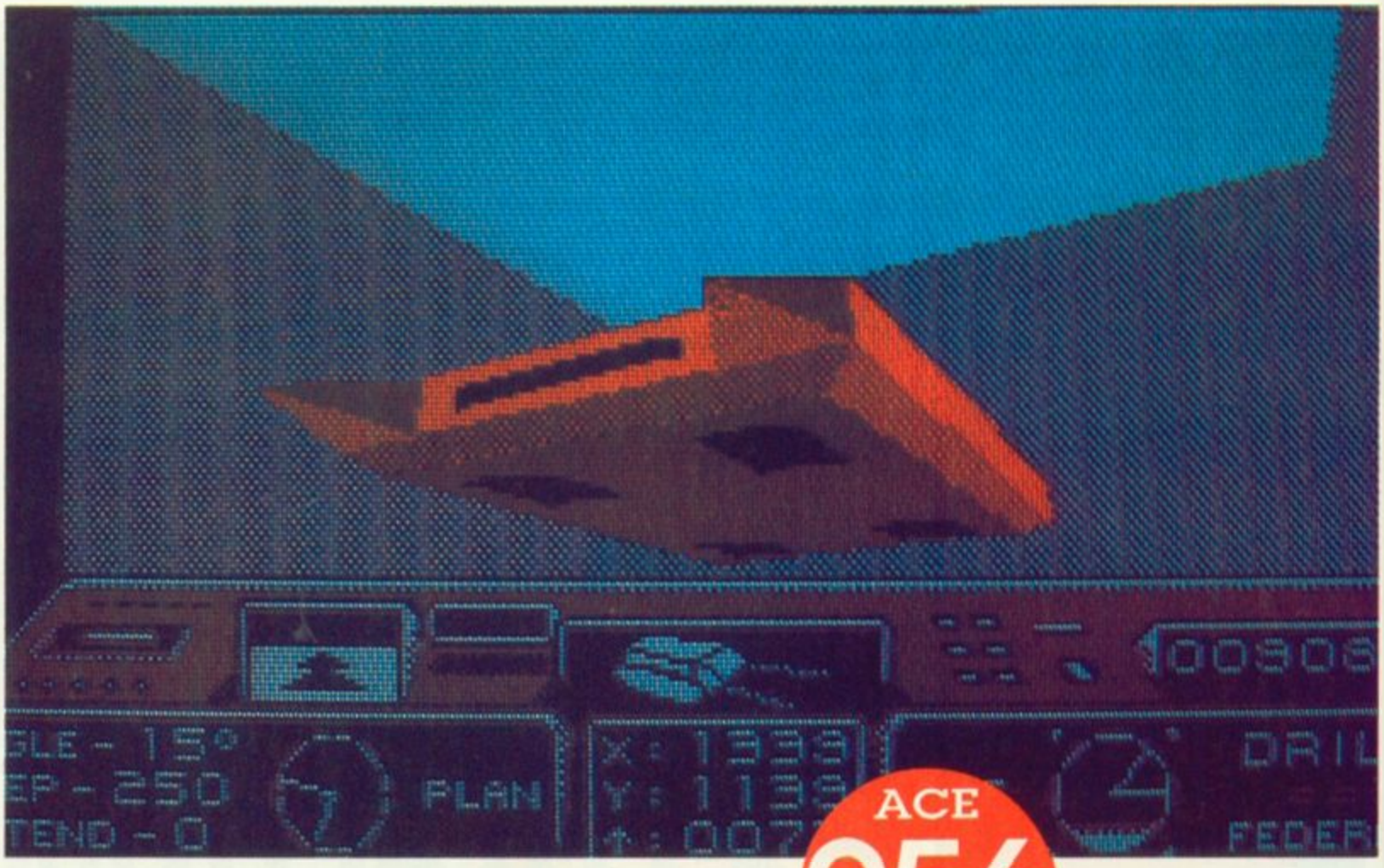
GRAPHICS	8	IQ FACTOR	5
AUDIO	7	FUN FACTOR	7

ACE RATING 887

PREDICTED INTEREST CURVE



Initial frustration vies with graphic polish, but it's addiction that wins through in the end



Amstrad: You've found the spotter plane inside its hangar. Dock with it and you can take to the skies!

ACE 956 RATED

DRILLER

Solid exploration from INCENTIVE

Amstrad: You're in the jet now, looking back at the excavation probe.

GAS build-ups are no laughing matter – not when they're threatening to blow up one of your home planet's moons, at any rate. The debris from the explosion would make rather a hole in everybody's lifestyle, so you've got to get up there and prevent that big bang by setting up drilling rigs and siphoning off the gas. It's a race against time to find the gas pockets, and there's a lot you'll have to work out for yourself.

The playing area isn't the actual lunar surface – that's far too hostile an environment even for your heavily armoured excavation probe – but rather it's an artificial structure built around, and almost encasing, the moon itself. This structure consists of 18 square sections joined at the edges, but there are still holes you can fall through so you'll have to watch your step.

As you explore the buildings and objects to be found in each section your driver's-eye view of them is in true perspective 3D, with solid colour or texture-filling used on all surfaces. Especially where textures are used, it's not always entirely clear what distant or small objects actually are. The solution's simple here: just trundle up to them and take a look. Tiny dots become cubes or pyramids on closer inspection, and seemingly connected buildings turn out to have narrow – but navigable – alleyways in between.

RELEASE BOX		
C64/128	£14.95cs, £17.95dk	DEC 87
SPEC	£14.95cs, £17.95k	OUT NOW
AMS	£14.95cs, £17.95dk	OUT NOW

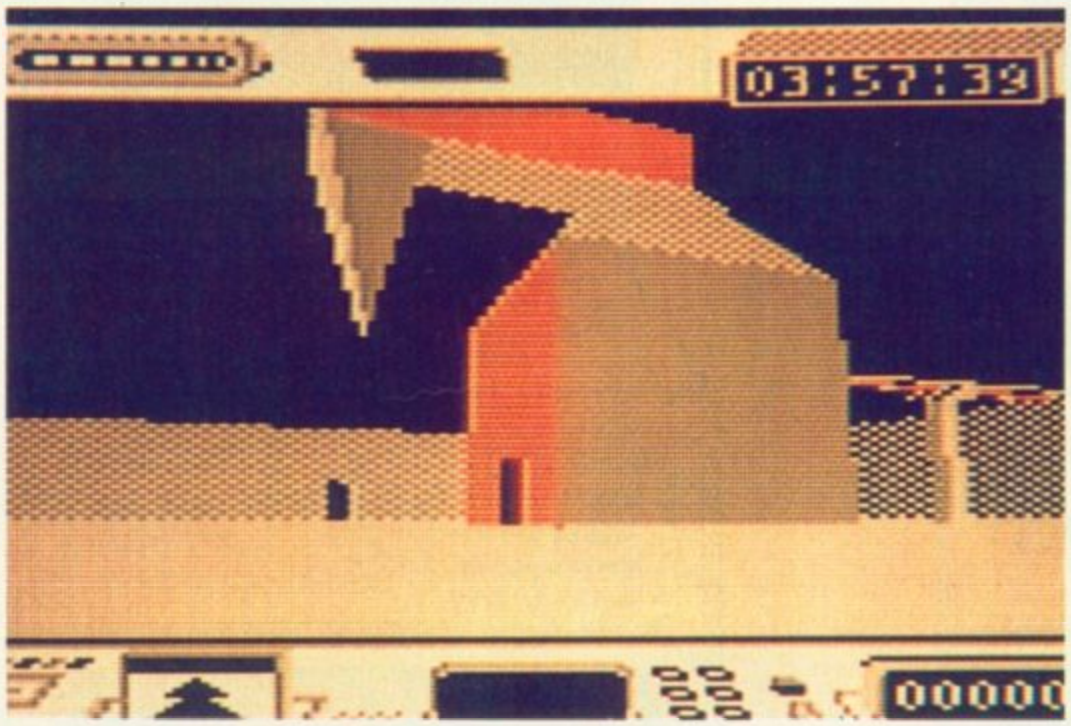
At first you'll simply want to explore the moon. This is a tough enough task to be getting on with: though there are obvious doorways to adjoining sections or into buildings right from the word go, you'll need to find or create others. There's more to this than trundling around and looking: you'll also have to identify various switches, and shoot them with your laser cannons to trip them.

Often switches don't directly create the results you want: some work in groups so you'll have to set all the switches correctly before anything useful happens, while others simply reveal further switches that were previously invisible. There are no general principles here – just shoot and observe.

As you might already have guessed, you aren't the only one who gets to do some shooting. The moon's abandoned security system is still in working order, and its static laser turrets can subject you to withering fire if you stray into their field of view. Fire back and you may knock them out or at least impair them before they drain your shield and destroy you, but some turrets are cannon-proof. You may have to search for another route through here, or simply grit your teeth and run the gauntlet.

Turrets aren't the only hazard at that. An orbiting killer satellite will fire down on you if it gets the chance, while minefields and acid rivers make some routes decidedly dangerous. Large drops can wreck your probe even if they don't plunge you onto the moon

Spectrum: A view from the bridge — impressive even if it is only in mono.



C64: Not a finished version, but these graphics should give you an idea of what to expect.

1

2

3

1: A well defended building — that white pyramid is a gun turret covering the entrance, and shooting it won't get you anywhere.
2: Let's head round the back. Maybe there's a rear way in...
3: ...or maybe those power lines have got something to do with it.

below, so simple trenches can't be taken lightly either.

Once you've explored the moon, with the help of the energy and shield crystals around the place, you still have to address the central problem of venting the gas. Positioning drilling rigs is child's play – just teleport them in from your home planet at the press of a key – but you have to know where the gas pockets are. The landscape contains all the information you need, but much of it is in cryptic form – symbols on the ground, messages on walls etc – so you'll need to have your brain in gear.

The realism of the *Driller* playing area lies not just in the solid 3D graphics used to depict it, but also in the very adventure-like way you can think things up, do them and find they work. There's so much to do beyond the normal: if you find the switch to get the moon's teleport network running, can you work out how to trip it? If you find a spotter plane to fly around in, can you keep it airborne?

Fitting *Driller* into a pigeonhole is tricky. There are arcade, adventure and logical puzzling elements to the gameplay, while the slow-but-impressive graphics hang some where between *Starstrike II* and *The Sentinel*. It's bold, dazzlingly original and very playable too, and it deserves to feature prominently in the Yuletide charts.

● Andy Wilton

Amstrad Version

Hard to believe you're only looking at a CPC display, what with the realism this one wrings out of it in places. It may take its time updating the screen, but it's worth the wait.

GRAPHICS	9	IQ FACTOR	8
AUDIO	4	FUN FACTOR	5

ACE RATING 956

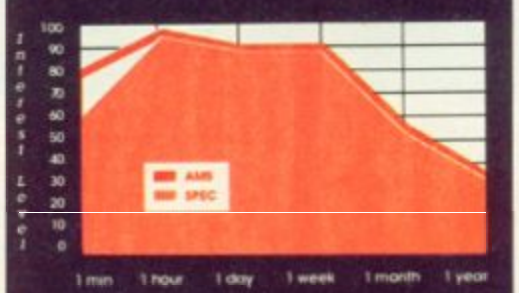
SpectrumVersion

It may only be in mono, but the textures used in the display are still very effective and the screen redraws at a healthy speed making the game that much more playable.

GRAPHICS	8	IQ FACTOR	8
AUDIO	3	FUN FACTOR	5

ACE RATING 931

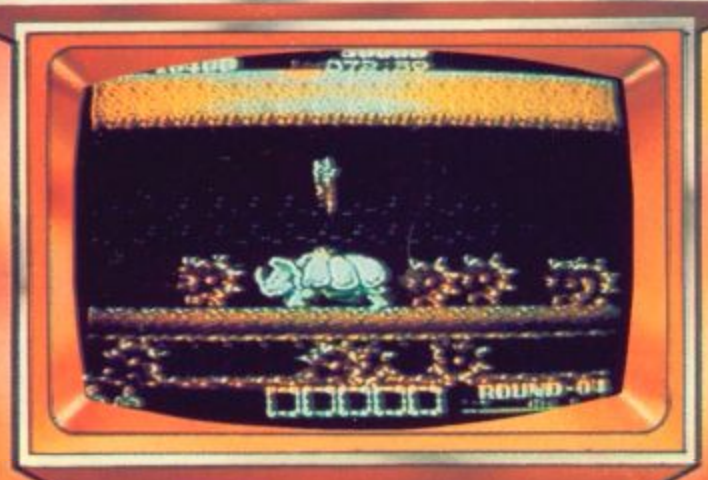
PREDICTED INTEREST CURVE



The Amstrad's colours give it more instant appeal, but both versions will enthrall you once you start to explore the game a bit.

THE BEST, THE VERY BEST

RYGAR



From the dawn of time comes a legendary warrior to thrill players everywhere... Rygar! A warrior who respects one code alone, the code of combat. Antagonistic gladiators, reptiles, mammals, monsters, creatures of magic... Come one, come all, come to meet the might of the fearless Rygar and in the words of the immortal warrior – LET'S FIGHT!!!

CBM 64/128 £9.99t £14.99d
Amstrad £9.99t £14.99d
Spectrum 48/128K £8.99t

TECMO™

SCREEN SHOT FROM ARCADE VERSION.

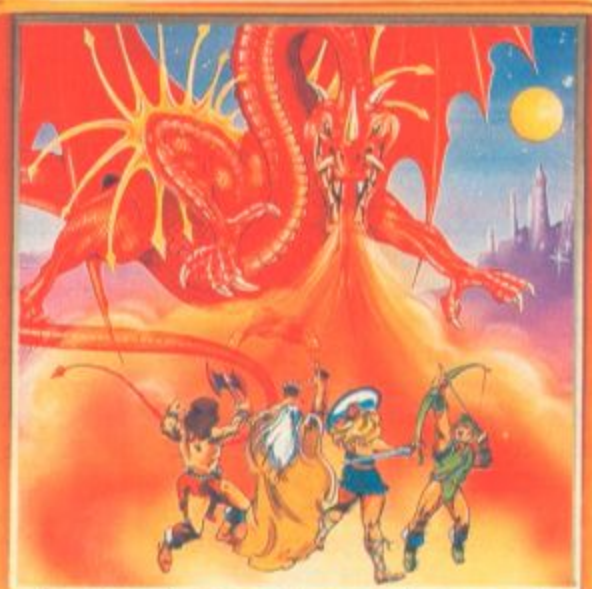
U.S. Gold Ltd., Units 2/3 Holford Way, Holford, Birmingham B6 7AX. Telephone: 021 356 3388.

GAUNTLET II *TM

The mindblowing sequel to the No. 1 smash hit! Addictive, frantic and packed with so many new features it's a totally new game. Gauntlet II is not just a further episode in this enthralling crusade, it is a whole new experience in action packed adventure

CBM 64/128 £9.99t £11.99d
Amstrad £9.99t £14.99d
Spectrum 48/128K £8.99t
Atari ST £19.99d

ATARI® GAMES



SCREEN SHOT FROM ATARI ST VERSION.

*TM & © 1986 Atari Games Corporation. All rights reserved. Licensed to U.S. Gold Ltd., Units 2/3 Holford Way, Holford, Birmingham B6 7AX. Telephone: 021 356 3388.

YOU WONDER WHY OTHE

ST, AND NOTHING BUT THE BEST

720°*™

The ultimate aerial experience now available for your computer. All the thrills and skills of real skate-boarding in this unique challenge to become champion of the skating world. Improve your techniques in both freestyle and competitive action as you attempt to complete the ultimate manoeuvre – the 720 degree twist while soaring through the air.

CBM 64/128 £9.99t £11.99d
Amstrad £9.99t £14.99d
Spectrum 48/128K £8.99t

ATARI® GAMES

SCREEN SHOT FROM SPECTRUM VERSION.

U.S. GOLD

* TM & © 1986 Atari Games Corporation. All rights reserved. Licensed to U.S. Gold Ltd., Units 2/3 Holford Way, Holford, Birmingham B6 7AX. Telephone: 021 356 3388.

INDIANA JONES and the TEMPLE OF DOOM™

Pick up your trilby and trusty bullwhip and don the mantle of the legendary Indiana Jones! Prepare yourself for your most dangerous adventure yet – to storm the evil Temple of Doom and rescue the imprisoned children and the magical stones of Raa! You will call on all your reserves of courage, strength and skill. Push yourself to the limit, ride your luck and the magical stones may just be yours.

CBM 64/128 £9.99t £14.99d
Amstrad £9.99t £14.99d
Spectrum 48/128K £8.99t
Atari ST £19.99d

ATARI® GAMES

SCREEN SHOT FROM ARCADE VERSION.

U.S. GOLD

© 1985 Lucasfilm Ltd and Atari Games Corporation. All rights reserved. * Trademarks of Lucasfilm Ltd., used under licence. Licensed to U.S. Gold Ltd., Units 2/3 Holford Way, Holford, Birmingham B6 7AX. Telephone: 021 356 3388.

HE COMPANIES EVEN BOTHER...

Coming early 1988 HALLS OF KYROS (SEGA), ROLLING THUNDER (NAMCO) ROADBLASTERS (ATARI GAMES)

BUGGY BOY

ACE 906 RATED

Are ELITE buggin' you?

FORGET the Ferrari – *Buggy Boy* puts the player behind the wheel of an off-road, race-tuned Baja Buggy.

The game is viewed from a position behind and slightly above the buggy. The aim is to complete one of five courses by completing the various legs that make them up. The roadway scrolls towards the player, continually twisting and turning so that the player has to move the joystick to avoid the various obstacles. Of course, you're racing against the clock on each leg – much like *Out Run* – and failure to reach the check point means it's time to start all over again. Besides the almost obligatory time limit, the player has to fight to avoid a plethora of road-side and on-road obstacles including trees, brick walls, fences and the occasional other buggy. Hitting an obstacle will have your buggy leaping into the air and coming down with a thud – you then have to pull away from a standstill and try to get your speed back up again before you lose too many valuable seconds. As well as crashing, the player can also witness his buggy flying through the air whenever he hits a bump and going up onto two wheels whenever he hits a molehill or a tree stump – this two wheel business is actually quite helpful for steering for through tight gaps.

Almost as an afterthought, the player can attempt to increase his score by driving

The off track practise circuit, learn how to handle Buggy-Boy.

RELEASE BOX

C64/128	£9.95cs, £14.95dk	OUT NOW
SPEC	£7.95cs, £14.95dk	JAN 88
AMS	£8.99cs, £14.95dk	JAN 88
ATARI ST	£19.95dk	JAN 88

Buggy Boy – what's new?

So you thought *Out Run* was the definitive car racing game and anything that bears even a passing resemblance to it was bound to be a poor substitute ? See *Buggy Boy* and then decide. Sure, the idea of completing several stages within a time limit appears in both games but that's where the similarity ends. *Buggy Boy* is far more concerned with picking your course and avoiding the obstacles than merely completing a course. In *Out Run*, you had cars to avoid, but *Buggy Boy* has the player risking far more in an attempt to drive through bonus gates; this can prove to be tricky until you get to know the course and will have the player running into an immovable object on more than one occasion simply because his greed for points has overridden his common sense.

The inclusion of on-road obstacles is also a cause for concern. Hit a log and the buggy goes flying through the air – great fun to watch but should it happen on a corner then you could be in for a lot of trouble, because you can't steer a car that's in mid-air. *Buggy Boy* is different enough to merit a high level of interest from even the most ardent *Out Run* fan.`

C64 Version

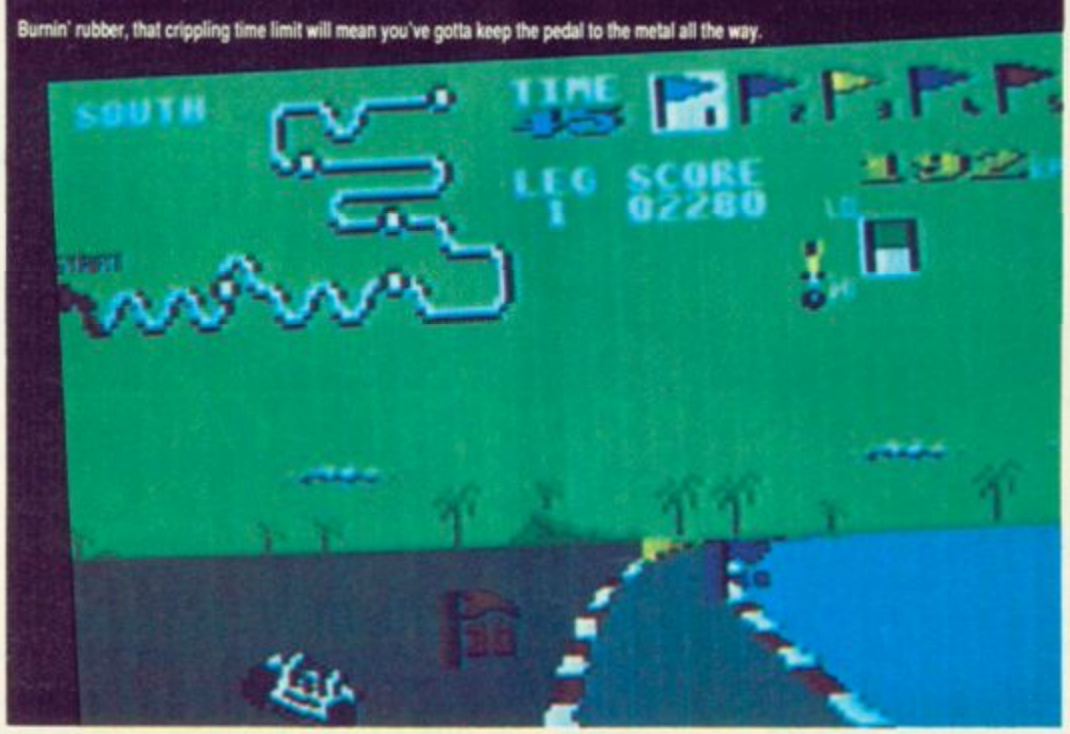
Although the scrolling is a bit poor, the graphics are very colourful and well drawn. Sound is great – throbbing engines throughout. It's not cerebral stuff, though memorising the courses can help. It's certainly instantly playable and very addictive, with the variety of course and legs providing much lasting interest.

GRAPHICS	7	IQ FACTOR	3
AUDIO	8	FUN FACTOR	8

ACE RATING 906

Oh Boy!

Burnin' rubber, that crippling time limit will mean you've gotta keep the pedal to the metal all the way.



PSST! Wanna see the world? Go to all the best airports? Get about on all the best railways? Give yourself a chance of picking up at least £5,000? And play a jolly entertaining quiz game at the same time? Yes?

Then look – as they say – no further; *The Travel Game* will be right up your street. The ultimate object of the game is to solve an 'Endgame Puzzle'; get this right and you stand a chance of winning that prize — £5K plus £1 per copy of the program sold. However, you only stand a chance of getting the pieces of the endgame puzzle by travelling the world to the right places.

And, of course, you can only go places by buying tickets. In *The Travel Game* you earn the money you need by answering questions, which is where the quiz element comes in. Describing the first steps in the game is probably the best way of giving an idea of what goes on.

RELEASE BOX

IBM PC	£24.95dk	OUT NOW
The program is available only by mail-order from		
Ruleformat 051-708 8202		

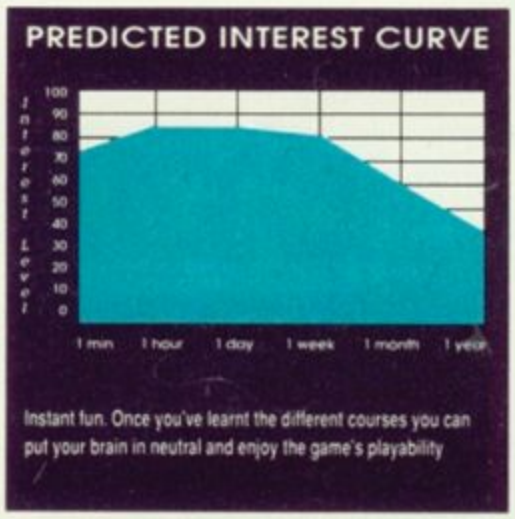
You begin in London with a clue to the first destination you must reach; a musical clue. When you've figured out that this place is Dublin you then have to get there. You have to go to a travel agent's, buy a ticket and get to the airport (in time).

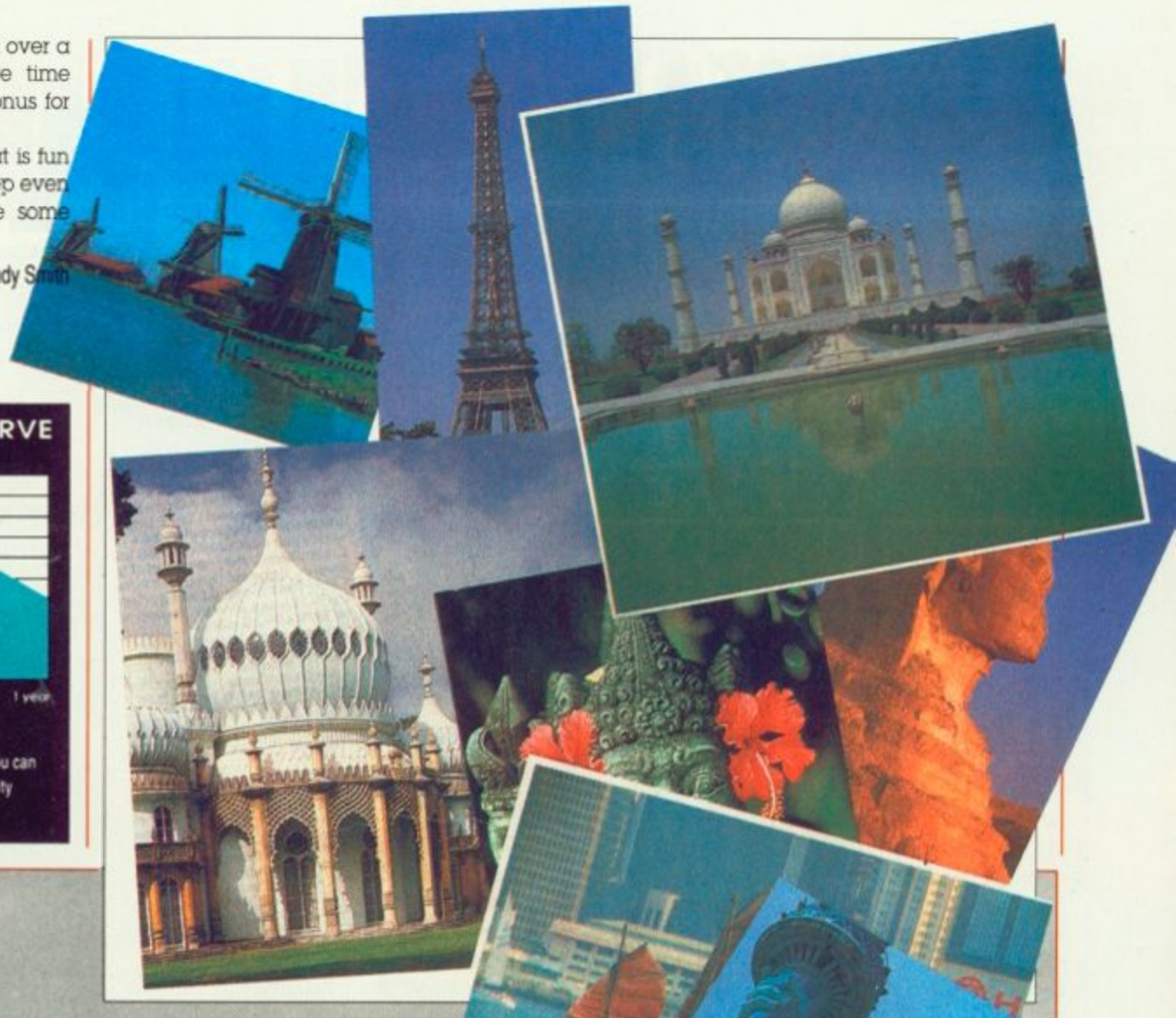
When you reach Dublin (or anywhere else, come to that) you should go to a shop and buy a souvenir. If you're lucky you'll be given a question which – if answered correctly – will give you a part of the endgame

the buggy through various gates and over a number of flags. Also included are time gates that give you a two second bonus for the second leg.

Buggy Boy is non-stop action that is fun to play; and it's difficult enough to keep even the best drivers engrossed for quite some time.

● Andy Smith





THE TRAVEL GAME

Peripatetic perplexity by RULEFORMAT

puzzle. Entering 'Display destination' will give you a clue to the next stop you must make. The destination clues are generally none too difficult to work out; what can be tricky is actually getting there. The logistics of getting from A to B (very often via D, Q or even X) are a large part of the fun and the frustration of the game.

The other part of the fun comes from earning the money wherewith to voyage. You go to a shop and buy a question for anywhere from £10 to £50; answering it correctly can bring you large amounts of cash. Getting it wrong means you lose your stake. There's a wide variety of questions, ranging from logical/mathematical puzzles through word squares and recognising quotations. The cheaper ones can be fairly easy, the expensive ones fiendishly difficult.

You need to accumulate money in order to travel – tickets from Paris to the Middle East don't come cheap. But, you may well be wondering, what do you do if you run out of cash? Beg. It's demeaning to wander round Paddington station trying to raise the cash to buy a cheap question, but it's the only way and it does work; eventually you get enough to start trying to accumulate more cash.

There are numerous pitfalls in *The Travel Game*. As well as blowing all your money you can get stuck in traffic jams – so missing trains ands losing valuable time, and forcing you to stay in overnight hotels. In certain locations you will bitterly regret carrying your stash in cash rather than travellers' cheques; it's not pleasant to be mugged and left penniless on the streets of an alien city.

The overall object of the game, of course, is to collect and answer all parts of the Endgame puzzle and give yourself a chance of winning the £5,000. But on the way you can have plenty of fun playing the quiz elements and just getting around. *The Travel Game* can become engrossing and exciting, whether played on your own or as part of a syndicate. Remember, though, that only one prize entry per disk can be submitted.

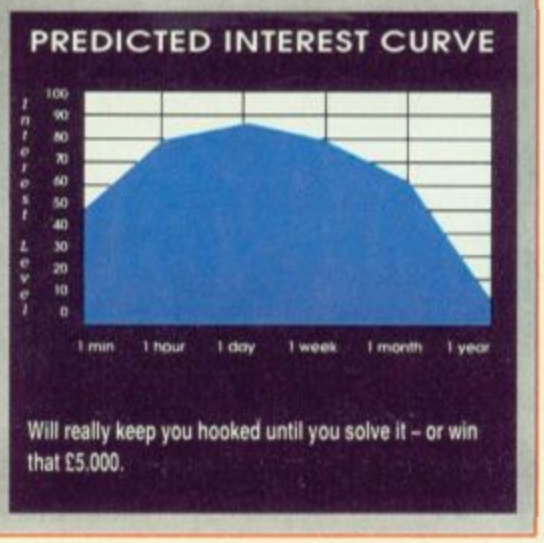
● Pete Connor

IBM PC Version

Don't buy the game if pretty graphics are what you want; there are none. *The Travel Game* is all about voyaging fun and puzzlesome questions. The user interface could have been a little friendlier, but once you get used to it it's not too much of a problem.

GRAPHICS	0	IQ FACTOR	10
AUDIO	5	FUN FACTOR	9

ACE RATING 838



BRAVESTARR

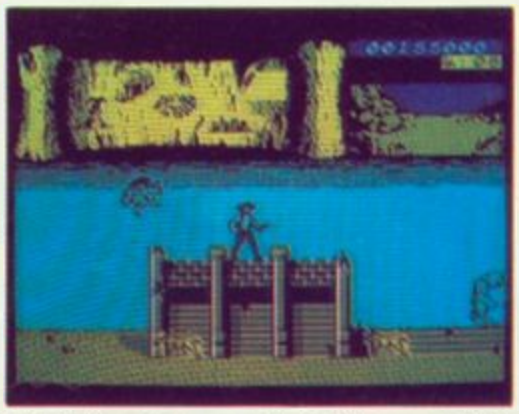
GO! west young man

FRONTIER planets like New Texas attract some pretty lowlife types, so local lawman Marshal Bravestarr (that's you) has his work cut out for him. That goes double right now, with the wise old Shaman held prisoner by evil Tex Hex and his gang. It's curtains for the Lone Star planet if you can't rescue Shaman, so you'd better get onto Hex's trail *muy pronto* .

RELEASE BOX		
C64/128	£9.99cs, £11.99dk	DEC 87
SPEC	£8.99cs,	OUT NOW
AMS	£9.99s, £14.99dk	DEC 87

You can run up and down the town's scrolling, side view main street fighting off bad guys with your trusty six-shooter, or drop into any of the town's named locations - the jail, bar or bank for instance - in search of information. Once you're inside a menu system lets you examine the place or talk to anyone there. The bar's your best bet for info, but you'll need money there - and for that you'll have to head out of town.

Climbing aboard your flying saddle, you can select your destination from the onscreen map and take to the skies. At first there's only one out-of-town location, but as you talk to people and gather clues the map starts to fill in. You'll have to blast your way through the tumbleweeds and other airborne nasties that swarm at you, and when you arrive it's another round of talk-and-examine.



Marshal B's in a ghost town, searching for the Hex gang: that's him standing on the roof.

There's an overall time limit to the game, and the clock can run down quite quickly if you keep taking serious hits. Tokens left behind by dead nasties can increase your rate of fire or even stop the clock briefly, but avoiding the bad guys is far too difficult. *Bravestarr*'s a valiant effort at something new, but innovation's no substitute for playability.

● Andy Wilton

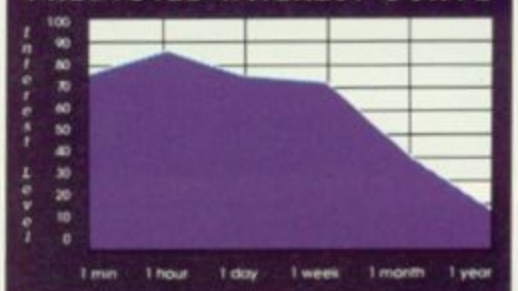
SpectrumVersion

Nice use of colour and not too much attribute clash either, But the gameplay's frustrating stuff.

GRAPHICS	7	IQ FACTOR	3
AUDIO	4	FUN FACTOR	5

ACE RATING 775

PREDICTED INTEREST CURVE



New locations help keep you involved, but the action soon gets frustrating

R.I.S.K.

Scroll and shoot to THE EDGE

RAPID Intercept, Seek and Kill – just in case you were wondering what the initials stood for. Jump in your skimmer craft and fly over the surface of the planet Christon 3 in an attempt to save your Space Weapons Research Establishment from the alien invasion.

RELEASE BOX		
C64/128	£8.95cs, £12.95dk	OUT NOW

Those gesticulating chaps need your help – so do try to avoid running them over.

This side-on viewed scroller starts with the player selecting a sector to explore before climbing into his craft and setting off to clear said sector of aliens. All the action here takes place over ground where the occasional small character can be seen running along the surface waving his arms. These chaps are your boffins and should be rescued and returned to Homebase.

Having rid the sector of aliens it's then time to head under ground into what's commonly known as The Tube. Here your ship scrolls continually from left to right and the player has to guide the craft gently onto one of three platforms containing supplies. Deciding which platform to go for depends on your flying skill and your thirst for supplies, the amount of which increases with each platform you pass.

Rescue some boffins and retrieve some blueprints and you're able to have add-ons (such as anti-gravity devices) built and fitted to your ship – a life of fighting aliens then becomes easier to live. *R.I.S.K.* is sufficiently different from yer average scrolling shoot 'em up to keep you fixed to your screen for some time.

● Andy Smith

C64 Version

The backgrounds and characters in *RISK* are all very well drawn and colourful. The scrolling is particularly attractive. Gameplay is a little tough to at first.Your ship seems to be affected badly by the planet's gravity, but building yourself some extra parts sems to solve the problem. It's not mind-stretching stuff (was *Defender?*) but it's good and playable while it lasts.

GRAPHICS	8	IQ FACTOR	3
AUDIO	7	FUN FACTOR	6

ACE RATING 709

PREDICTED INTEREST CURVE

The colourful graphics will hold you for a while, but you'll have seen most of it after a month or two. That won't stop you loading it up for the odd blast at some future time though.

21st CENTURY WARRIOR: APACHE GUNSHIP™

The Apache . . . Fierce and elusive, like its warrior namesake . . . Capable of defeating enemy tanks, infantry, and hostile aircraft on the modern electronic battlefield.
Gunship's revolutionary 3-D graphics enable you, the pilot, to fly into the world's hottest trouble spots . . .You'll use an unbelievable array of high tech information and weapon systems, including lasers, video cameras, night viewers, radar warnings, jammers, computers, missiles, rockets, flares and a 30mm cannon! Successful missions will be rewarded with medals and rank promotions.

GUNSHIP is available for the CBM 64/128K, Spectrum and coming soon for IBM PC and compatibles.

MICROPROSE
SIMULATION • SOFTWARE

Please send _____ copy/ies of Gunship CBM 64/128 ☐ Cassette £14.95 ☐ Disk £19.95.

Spectrum ☐ Cassette £9.95 ☐ Disk £12.95 ☐ Further details.

Name (block capitals) _____ Address _____

_____ Post Code _____

I enclose £ _____ including 55p P+P. Cheques payable to MicroProse Software Ltd.

or debit my Access/Visa card. Expiry date _____ No. ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

MicroProse Ltd., 2 Market Place, Tetbury, Gloucestershire GL8 8DA, UK. Tel: (0666) 54326. Tlx: 43422 MPS (UKG

AGENT X2

MAD pop the pimple

ZITS are what this simple but cleverly executed shoot-em-up is all about; one of the many mad professors who abound in computer games is about to unleash his Zit Ray on an unsuspecting world; your task as Agent X is to stop us all from breaking out in terminal acne.

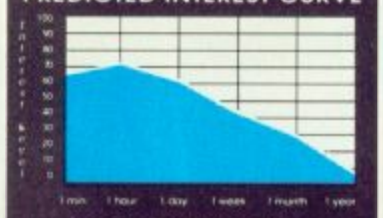
The game is a 3-parter; the first is a horizontally scrolling blast, the second a vertically scrolling one and the third is where you bust through a wall to get at the mad prof himself.

It's very nicely done, but does tend a little toward the repetitive – with the addition of the hypnotic and otherworldly sound track you can find yourself drifting off in to a zombie-like shoot-em-up trance. Graphics, too, are sweet, if unexceptional.

● Pete Connor

RELEASE BOX		
C64	£1.99cs	OUT NOW
AMS	£1.99cs	DEC 87
SPEC	£1.99cs	DEC 87

PREDICTED INTEREST CURVE



ACE RATING 616

HYBERBLOB

Blob minding with FIREBIRD

BLOBPODS are among the most stupid creatures in the universe, and controlling them on their outings is your thankless task in this very simple, very clever and very enjoyable cheaple.

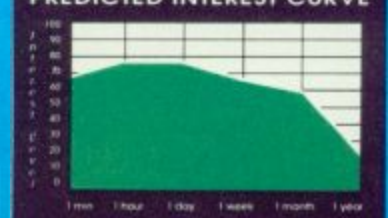
The Blobpods are circular bouncing faces who have to bounce their way from one end of a row of cubes to the other. Unfortunately, there are gaps in the row, down which the Blobs will disappear – unless you can be quick with your stick and move cubes in to the vacant space. Sounds dull, but it can become frenetic as you try to fill thre gaps with a swarm of the stupid creatures bearing down on you.

With 100 levels – which don't start any too easy – there's a lot of fun to be had. It's all basically the same thing, but the thing is fun, so who cares?

● Pete Connor

RELEASE BOX		
C64	£2.99cs	OUT NOW

PREDICTED INTEREST CURVE



ACE RATING 783

ACTION FORCE

Join VIRGIN and shoot Cobra

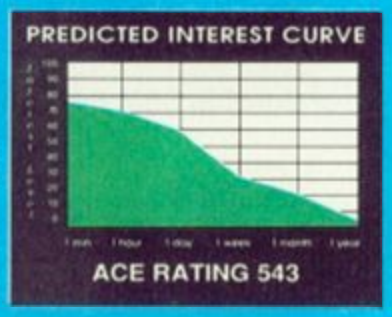
VIRGIN'S Gang of Five programming team has a deservedly high reputation, which, unfortunately, is unlikely to be furthered with *Action Force*.

In this game of the toy, you control a Dragonfly helicopter blasting the skies in order to protect a C5-type buggy on its way to crack the enemy computer base. Along with indiscriminate shooting (turn on that autofire) you must also winch up bridges and drop them so that the AWE Striker buggy doesn't fall down craters and shoot out electrical fence installations. Some nice graphics and fast action, but the interest palls fairly quickly.

● Christina Erskine

RELEASE BOX		
C64	£9.95cs	DEC 87
SPEC	£9.95cs	DEC 87
SPEC +3	£14.95dk	DEC 87

PREDICTED INTEREST CURVE



ACE RATING 543

GUNBOAT

PIRANHA mess about in boats

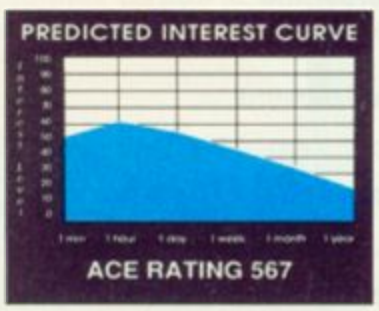
SPLASH bang, wallop, is the order of the day in this watery shoot-em-up. Get out on the river in your hunter-killer and shoot everything in an attempt to 'penetrate the complex network of inland waterways held by the enemy'. You can fire missiles, torpedoes, shells or drop depth charges – which accounts for just about every type of enemy you'll encounter.

There's a choice of routes to take, but wherever you go you'll find that the going is pretty tough – so tough that's it's pretty hard to even get going at the start of the game. The rather drab and old-fashioned graphics on this C64 version don't help much.

● Pete Connor

RELEASE BOX		
C64	£8.95cs, £13.95dk	OUT NOW
AMS	£8.95cs, £13.95dk	JAN 88
SPEC	£8.95cs	JAN 88

PREDICTED INTEREST CURVE



ACE RATING 567

BUBBLE GHOST

Spectral fun from ERE INFORMATIQUE/INFOGRAMES

WELL, here's a turn up for the books – a French game that's not only a pretty face, but packs a powerful and addictive punch of gameplay as well. Hitherto we've seen lots of programs showing off their dazzling cartoon-style graphics, but they sadly lacked anything else. This one fits the bill nicely.

Like many of the best ideas the game is astonishingly simple; all you have to do is blow a bubble through rooms. But, of course, it's not quite as simple as that might sound. These rooms are filled with a collection of surrealistic graphics and traps, whose presence makes the bubble's progress somewhat problematic.

Is that a Joshua-style wall-destroying trumpet? Give it a blast and see.

Doing the huffing and puffing is the cute ghosty you control – a sheet-over-the-head thingy of considerable charm. Ghosty is rotated using the mouse buttons, and given breath by pressing the shift key. Puff, though, is not unlimited; a bar at the bottom of the screen decreases rapidly the longer you keep your finger on the key. If you blow just a bit too hard Ghosty turns red; presumably the French go that colour rather than blue in the face.

As you'd expect, the greatest problem with the bubble is that it has a tendency to burst; contact with any of the walls or objects means the end. To keep it airborne and going in the right direction you have to spin the ghost around and blow – with just the right force.

On the first few screens this is simple enough since you only have to go in straight lines and the obstacles are few. From room 3 onwards, though, things get a little more tricky; puzzles and booby traps are introduced, while your route becomes much more tortuous. Candles appear – and their heat will cause the bubble to rise (there's a simple way to deal with this, but we'll leave you to figure it out). Expanding and contracting walls mean you have to guide the bubble through the gap at exactly right time and at exactly the right level, thus provoking frantic readjustments of your angle of blow.

Later screens introduce further problems; frustration and addiction both mount the longer you play.

The feel of *Bubble Ghost* is reminiscent of *Thrust* as you rotate frantically in attempts to keep your bubble going. And like *Thrust*, it's very addictive. The only possible problem with it is that at 40 or so rooms in size it may not take too long to get to the end. But while it lasts it's great fun.

● Pete Connor

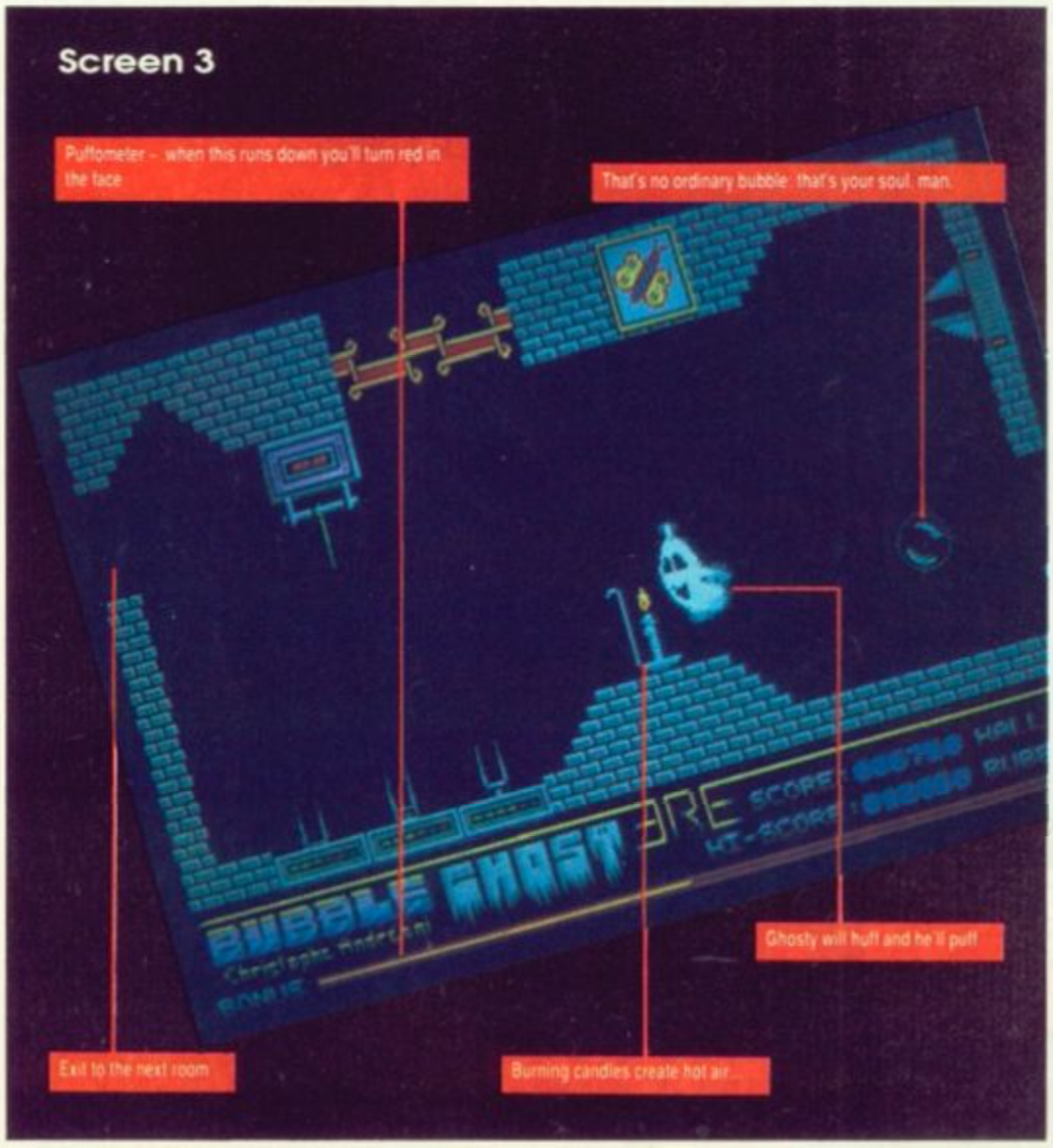
Atari ST Version

The graphics are witty and neatly drawn, with some entertainingly surrealistic touches. There could have been a few more screens, perhaps, but you still get a fun-packed prog with what there is.

GRAPHICS	8	IQ FACTOR	7
AUDIO	6	FUN FACTOR	9

ACE RATING 814

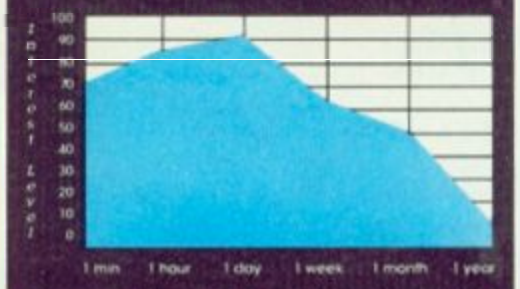
Screen 3



RELEASE BOX

ATARI ST	£19.95dk	REVIEWED
C64/128	£9.95cs, £ 14.95dk	FEB 88
IBM PC	£19.95dk	FEB 88

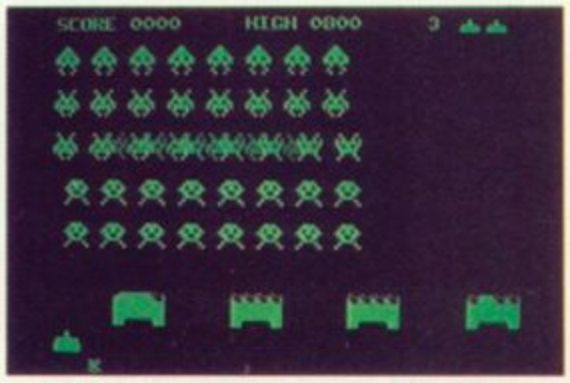
PREDICTED INTEREST CURVE



Grips you straight away in its manic hold and doesn't let go easily. It's fun enough to return to even if you complete it.

ARCADE CLASSICS

FIREBIRD rave from the grave



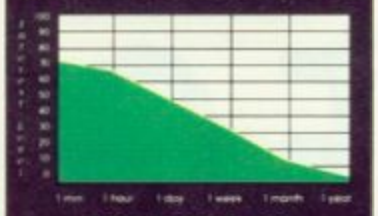
TO think that once upon a time we all went ga-ga over games like these! Nowadays *Space Invaders*, *Asteroids*, *Snakes* and *Space Wars* look – and play – like dinosaurs from the land that time forgot. It's all a bit sad really; a compilation of arcade classics sounds like a great idea.

Unfortunately they just haven't got the sophistication of graphics or gameplay to cut the mustard in these 16-bit times; only the strange deep space rock-blasting of *Asteroids* retains a modicum of compulsiveness.

● Pete Connor

RELEASE BOX		
C64	£1.99cs	OUT NOW

PREDICTED INTEREST CURVE



ACE RATING 499

INSIDE OUTING

The EDGE'S little gem

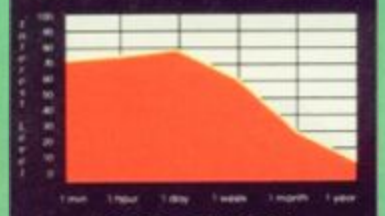
ISOMETRIC three dimensional games still make an appearance every once in a while and if the game's good as this,then why not?

Inside Outing is a witty Isometric romp that has the player roaming through rooms that would grace many a stately home. The object is to collect 12 hidden jewels and take them to the lady of the house – who spends her time wandering aimlessly around in one of the upstairs bedrooms. Collecting the jewels is far easier to say than do however, because many are hidden and only reveal their whereabouts after the player has solved a puzzle. Colourful graphics add a lot of atmosphere to a game that bears more than a passing resemblance to *Get Dexter*

● Andy Smith

RELEASE BOX		
C64	£8.99cs, £14.99dk	OUT NOW
AMS	£8.99cs, £14.99dk	DEC 87
SPEC	£8.99cs	DEC 87

PREDICTED INTEREST CURVE



ACE RATING 702

KROMA ZONE

MASTERTRONIC blast again

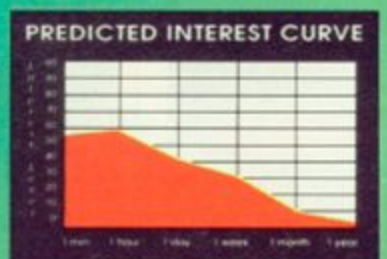
YET another 3D shoot-em-up comes down your way. This one's got some pretty neat graphics and sound but virtually nothing in the way of depth or originality of gameplay.

You start off in a preliminary dodge-em-up; you must avoid the globes heading towards your MantaRay ship. This is pretty tough, depending on getting the right rhythm of the advancing waves. Assuming you get through that, you go on to the blasting. Standard stuff, this is, with all sorts of shapes coming at you. *Kromazone's* OK if you're looking for a quick and cheapish blast, but give it a miss if you want anything in the way of mental challenge.

● Pete Connor

RELEASE BOX		
C64	£2.99cs	OUT NOW

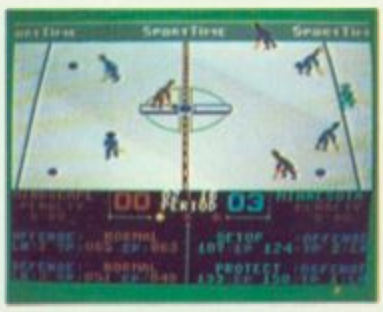
PREDICTED INTEREST CURVE



ACE RATING 431

SUPERSTAR ICE HOCKEY

DATABYTE'S puck prog



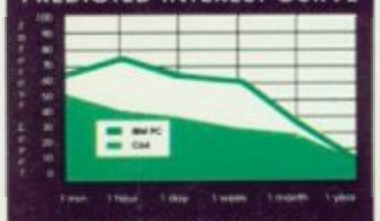
JEKYLL and Hyde is what the two versions – IBM PC and C64 – of this game bring to mind; on the PC it's graphically smooth, sonically tolerable and good fun to play; on the C64 it's graphically poor, sonically naff and not a barrel of laughs.

The game's core is playing the game on screen; around this you can do all the usual stuff such as trading players, fiddling around with tactics and competing in a league over a season. All well and good, but you won't really want to bother unless the gameplay is fun. While on the PC you can bump and bore and see sparks fly from your skates as you spin round, on the 64 your man moves more like a bowls player to the accompaniment of sound effects that sound like someone sweeping the living room carpet – as such, it's one strictly for the dedicdated Ice Hockey fan.

● Pete Connor

RELEASE BOX		
C64/128	£9.95cs, £14.95dk	OUT NOW
IBM PC	£24.95dk	OUT NOW
SPEC 48k	£24.95dk	JAN 88
ATARI ST	£24.95dk	JAN 88

PREDICTED INTEREST CURVE



ACE RATING 456(C64)
ACE RATING 681(IBM PC)

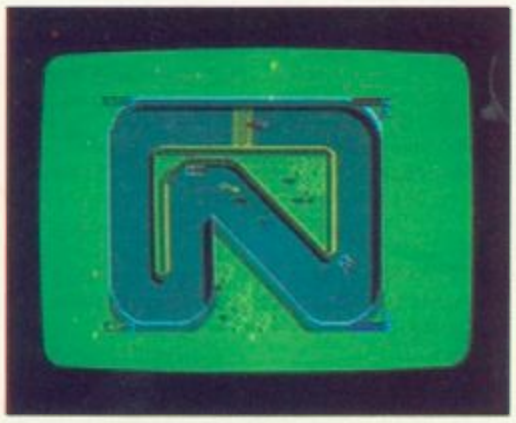
AMSTRAD

SUPER SPRINT

Electric Dreams £9.99cs £14.99dk

Spectrum version reviewed issue 2 – ACE Rating 907
C64 version reviewed issue 3 – ACE Rating 917

A bit of a disappointment really, with little annoyances marring the game's playability. Collision detection is badly off in places, and the 'feel' of the other two versions isn't really there. Still a good racing game, but not a great one.



● ACE RATING 831

TRANTOR

GO! £9.99cs £14.99dk

Spectrum version reviewed issue 3 – ACE Rating 517

Great use of colour makes this sideways scroller a big improvement on the Spectrum version. On the gameplay front it's simple blast'n'search fare and the game task is still a bit too easy to provide any real long-term challenge – but what a stunner it is graphically!

● ACE RATING 681

RED L.E.D.

Starlight £9.99cs £14.99dk

C64 version reviewed issue 2 – ACE Rating 910
Spectrum version reviewed issue 3 – ACE Rating 910

Some very tasty updates are now available for your machines. Can PC owners afford to neglect *Gunship*? Can Amstrad owners be so unwise as to miss out on *RED L.E.D.*?

Bear in mind that even if we didn't particularly like the version of the game that we originally reviewed, the next version could be a whole lot better – as in the case of *Trantor* on the Amstrad, whose graphics put it in an altogether higher class than the Spectrum version.

Great scrolling – surprisingly smooth – and good use of colour make this an impressive and worthwhile conversion. As on the other versions, the combination of blasting, exploration and *Spindizzy* -style dexterity gives it bags of long-term interest and a nice fat rating.

● ACE RATING 915

IBM PC

GUNSHIP

Microprose £34.95dk

Excellent graphics, involving simulation and a variety of missions make this one of the best PC games in a long while. Piloting your 'copter around in order to zap various gooks may not be terribly tasteful – but if you can bear the politics you should have a lot of fun.

● ACE RATING 902

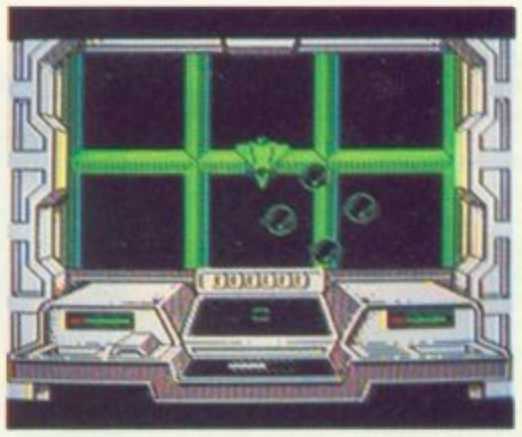
SPECTRUM

IMPLOSION

Cascade £8.95cs

C64 version reviewed in issue 3 – ACE Rating 702

Monochrome it may be, but the scrolling on this shoot-em-up's satisfyingly fast and smooth for such a tricky conversion subject. The *Uridium*-style flipover is gone and the sound's pretty uninspired stuff, but the gameplay's still intact making it good, simple fun.



● ACE RATING 694

AMIGA

LEVIATHAN

English Software £19.95

This *Zaxxon*-ish 3D shoot-em-up finally makes it to the Amiga, offering a competent but unexciting blast. Like other versions it lacks the feeling of urgency and desperation you get from a good action game. Graphically it's well-drawn and witty, but better use of colour would have made for more initial appeal

● ACE RATING 746

ACE

Collect it!

Missed the first issues of ACE? Don't despair. Copies can be despatched to your letterbox for just £1.50 each (postage free). Look at these highlights.

ISSUE ONE

- FREE cassette containing COMPLETE games worth £8-£10 – US Gold's BLUE MAX for the **C64** and Ocean's GIFT FROM THE GODS for the **Spectrum**.
- Buyer's Guide describing the ACE all-time top 50 games.
- Large, colour reviews of XOR, Bubble Bobble, Quedex, Impact, Barbarian, Mask and more.
- Which Console? A detailed comparison of the Nintendo, Sega and Atari machines and the software available for them.
- Music. Intro to Midi and a review of Casio's Midi Guitar.
- Great playing tips on Guild of Thieves, Barbarian, Sentinel, Bounder, Defender of the Crown and more.
- Spoof letters page!

ISSUE TWO

- FREE cover cassette containing the FIVE complete levels of the arcade smash BUBBLE BOBBLE (C64 and Spectrum versions)!
- Buyer's Guide to budget software – 30 top titles listed.
- Rave reviews of RED L.E.D., SUPERSPRINT, SKULLDIGGERY, and more.
- Detailed playing guides to XOR and HITCHHIKERS, plus pokes on Deathwish 3, Paperboy, Leaderboard and others.
- Features on recommended joysticks, 3D graphics and measuring your game-playing skills.

ISSUE 3

- Detailed comparison of the Atari ST, CBM Amiga and Acorn Archimedes.
- Comprehensive buyers guide to strategy games.
- Playing guides to Red LED, Skulldiggery, Boulderdash, Dizzy and many more
- DigiPaint and Deluxe Paint III compared.
- Music special on sound sampling and the Roland MT32.
- Introduction to Play by Mail games.
- Great Computer Disasters
- Screen Test reviews on Thundercats, Terrorpods, Indiana Jones, Nipper 2, Trantor, Captain America and many others.

How to order

Just use the FREE POST order form on page 143, quoting order code A120BI (issue 1) , A120B2 (issue 2) or A120B3 (Issue 3). Or just send a cheque for £1.50/issue made out to Future Publishing Ltd to:

ACE Back Issues, Future Publishing Ltd, Somerton, Somerset, TA11 7PY

ACE COMPUTER DEALERS

These independent computer dealers stock copies of ACE togethe with a wide range of other computer products.

■ SCOTLAND

John's Computer Store
4 Graham Street
Airdrie
ML6 6BU

Mobile Micro Marketing
1 Eastback Street
Bishop Mill
Elgin
Morayshire

B P Micros
254 Kilmarknock Road
Glasgow
G43 2XS

Graffix
9 Albert Place
Leith
Edinburgh

■ NORTH

Computer World
10 Swabys Road
Dyer Lane
Beverley
HU17 9BZ

P V Tubes
104 Abbey Street
Accrington
Lancs
BB5 1EE
Tel: 0254 36521

Pennine TV
58 Cavendish Street
Keighly
West Yorkshire

Worthingtons
62 Oxford Lane
Warrington
Cheshire
Tel: 0925 56787

Chips Computers
151-3 Linthorpe Road
Middlesborough
Cleveland

Computer World UK Ltd
208 Chorley Old Road
Bolton
Lancs
Tel: 0204 494304

H W Luxton & Son
236-8 Smithdown Road
Liverpool
L15 5AH
Tel: 051 733 1135

Richard James
4 Finkle Street
Workington
Cumbria
Tel: 0946 830903

Topsoft
3 Hambletonian Yard
Stockton on Tees
Cleveland

York Computer Centre
9 Davygate Centre
York
YO1 2SV
Tel: 0904 641862

Lodge Self Serve
High Street
Eston
Middlesborough
TS6 9JQ
Tel:0642 465561

Topsoft
6 Wellington Court Mews
Darlington
DL1 5PD

Kiosk & Book Gallery
23-27 Alderley Road
Wilmslow
Cheshire

Colourspot
Unit 148 Market Way
Arndale Centre
Manchester
Tel: 061 834 6644

Vu Data
221A Old Street
Ashton-under-Lyme
Lancs
OL6 7SR

■ MIDLANDS

North Notts
23 Outram Street
Sutton-in-Ashfield
Notts
Tel: 0623 556686

Hewards Home Stores
822-824 Kingstanding Road
Kingstanding
Birmingham
B44 9RT
Tel: 021 354 2083

Fast Forward Computer Store
29 Smith Street
Warwick

Comptazia
204 High Street
Dudley
West Midlands

Comptazia
The Shopping Mall
Merry Hill Centre
Brierly Hill
W Midlands

Oaktree
Michelan House
Guildhall Street
Grantham
Lincs
NG31 5NJ

Spa Computer Cenmtre
22 High Street
Royal Leamington Spa
Warwickshire
CV31 1LW

Mr Disc
12 Three Shires Oak Road
Bearwood
Warley
W Midlands

Aird Computer Services
139 Bromford Road
Hodge Hill
Birmingham 36

■ SOUTH

Viking Computer
Ardney Rise
Cottongrove Road
Norwich
Norfolk
NR3 3QH
Tel: 0603 45209

Computer Magic
24 Crown Street
Ipswich
Suffolk
Tel: 0473 214868

G B Microland
7 Queens Parade
London Road
Waterlooville
Hants
Tel: 0705 259911

Pro-Am Computing
151 Goldsworth Road
Woking
Surrey

The Micro Shop
32a Tolhouse Street
Great Yarmouth
Norfolk
NR30 2SQ
Tel: 0493 842697

Anita Business System
Anita House
15 Clerkenwell Close
London
EC1R 0AA

Thetford Micros
21 Guildhall Street
Thetford
Norfolk
Tel: 0842 61645

Trionic
144 Station Road
Harrow
Middlesex
Tel: 01 861 0036

Soft Spot
5 George Street
Banbury
Oxon
Tel: 0295 68921

Note to dealers

If you would like to included in this lis please telephone Louise Cockroft o 0225 446034.

PHANTOM CLUB

Evil evasion with OCEAN

PHILANTHROPIC you may be, but there's no place for it in the *Phantom Club*, the sequel to the highly original *Movie*. In the guise of a lowly Zelator (beginner), you must travel through a staggering 550 3D locations ridding the Club's headquarters of evil, completing tasks and slowly climbing the ladder to Ipsisimus – overlord status with ample power to defeat the nefarious Zarg.

Thankfully, the icon-control system which featured heavily in *Movie* has disappeared. In fact, almost the whole screen is devoted to the graphically-pleasing artifacts of the Club. You, Plutus, begin with five reincarnations, full energy and Brainstorm (your fire power). The start room, and every location thereafter, is littered with objects – some good, some bad, some purely for decoration. To determine which is which will take considerable time.

Completing missions entails locating and killing a character. When you achieve Ipsisimus (level 10) you get to do battle with Zarg himself. However, a task is only set if you've attained the correct rank and have 40,000 points under your belt.

Points are gained by blasting the bizarre animated objects. When Zarg's minions are shot they don't disappear: some characters freeze, others spin, the really nasty ones mutate.

Phantom Club is going to keep you locked to the screen for a long while. Neat graphics, pleasing introductory music and plenty for the hardened arcade adventurer to explore and blow away.

● Richard Monteiro

Prepare to meet the levitating Buddha – it'll take quite a few shots to send him back to Nirvana

RELEASE BOX		
C64/128	£8.95cs, £12.95dk	JAN 88
SPEC	£7.95cs	OUT NOW
AMS	£8.95cs, £14.95dk	JAN 88

Spectrum Version

This is a big game and is definitely one for the mappers and puzzlers. And if you didn't like *Movie* it's unlikely to grab you. Graphics are not terribly colourful, but are very detailed. It's very playable and will keep you at it for some time.

GRAPHICS	7	IQ FACTOR	9
AUDIO	6	FUN FACTOR	7

ACE RATING 845

PREDICTED INTEREST CURVE

Lots of fun – but the puzzles mean you'll have to stick at it for some time

FREDDY HARDEST

Playboy fun from IMAGINE

FREDDY, our eponymous hero, is billed as 'the mischievous playboy in the galaxy'; for his screen debut Freddy has crashed his spacecraft somewhere in the Milky Way and must fight his way off the planet, eventually escaping for home.

The game is a two parter; the first half taking you through a horizontally scrolling landscape, shooting at a vast number of various nasties or felling them with a flying kick while negotiating craters and leaping across holes in the surface. The graphics are all large and nicely detailed and the aliens are large, neatly animated and suitably weird-looking.

Having completed part one, you'll be given an access code which enables you to load part two. Here you're inside the enemy base, searching terminals for a code with which you can hi-jack the captain's ship.

Although part two's screens look completely different, the gameplay is more or less the same. The enemy base is a network of two-tier tunnels and corridors. You must crouch to avoid sounders and blast or kick the inhabitants and robots. You can also move up and down from level to level via lifts or tunnels.

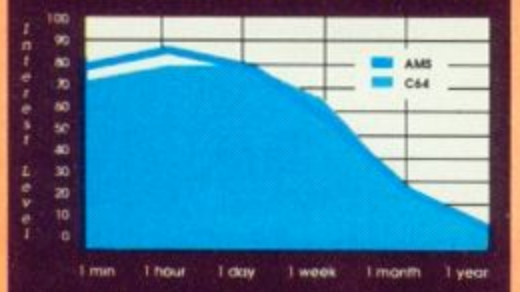
Freddy Hardest is essentially very simple in concept – dodge, blast and kick your way out of trouble, basically – so despite the different scenes in the second part, it all gets rather repetitive after a while. But it's jolly enough and pretty enough while it lasts.

● Christina Erskine

Playboy Freddy getting his kicks. It takes all sorts...

RELEASE BOX		
C64/128	£8.95cs, £12.95dk	OUT NOW
AMS	£8.95cs, £14.95dk	OUT NOW
SPEC	£7.95cs	DEC 87

PREDICTED INTEREST CURVE



Jolly and pretty at the start, but it certainly won't trouble you too much in the long term

C64 Version

Gameplay appears slightly tougher than on CPCs, especially on jumping and leaping, and you'll be tempted to cry 'foul' when floating aliens materialise while you're in mid-air and finish you off. Graphics have plenty of detail and the music sounds great.

GRAPHICS	8	IQ FACTOR	3
AUDIO	8	FUN FACTOR	6

ACE RATING 715

Amstrad Version

Nice animation with Freddy strutting, floating robots bobbing up and down, aliens lolloping across the screens. Gameplay fast with plenty to shoot and watch out for. The graphics are cheerful and colourful to the extent that the aliens look almost cuddly. Some of the collision detection is decidedly suspect, but when jumping from island to island it frequently works in your favour.

GRAPHICS	8	IQ FACTOR	2
AUDIO	7	FUN FACTOR	6

ACE RATING 734

JACKAL

KONAMI koin-op konversion

RELEASE BOX		
C64/128	£8.95cs, £14.95dk	IMMINENT
SPEC	£7.95cs	OUT NOW
AMS	£8.95cs, £14.95dk	OUT NOW

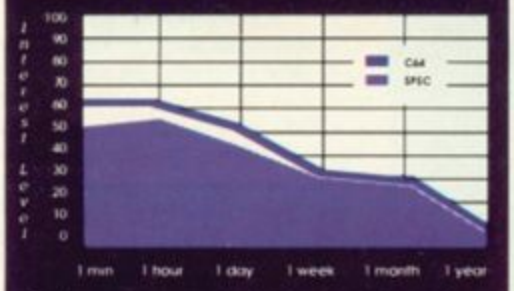
Spectrum Version

As you'd expect from the scenario, there's nothing too intellectually demanding in *Jackal*. Graphics are rather poor by current standards; enemy soldiers are tiny and unconvincing stick figures, while backgrounds are standard issue stuff. The merely average sound does nothing to soup up the fun.

GRAPHICS	5	IQ FACTOR	1
AUDIO	5	FUN FACTOR	6

ACE RATING 487

PREDICTED INTEREST CURVE



Even for a coin-op conversion this has little in the way of long-term involvement. Sadly, it doesn't have much in the short term either.

TWO years too late is the initial feeling you get upon playing Konami's latest conversion; the game is basically the old *Commando/Rambo* idea in a jeep.

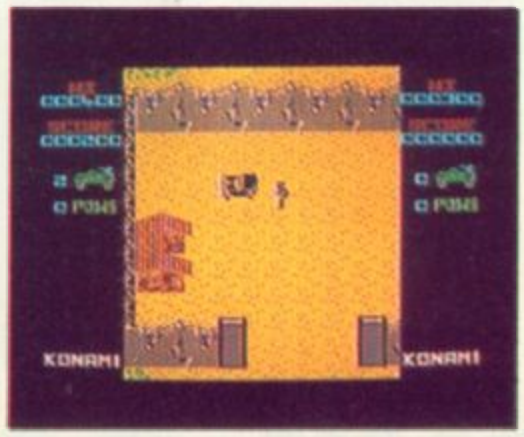
The plot is perfunctory; you land behind enemy lines in order to rescue your captured troops. You get a jeep which can fire either a machine gun or missiles. When you collect men you then go to a heli-pad so that they can be picked up by a chopper.

As you'd expect, the territory is infested with enemy troops and defences. Soldiers troll around with guns and grenades; pill-boxes with rotating guns are all over the place; tanks are plentiful. It's a question of blasting all and sundry in order to survive.

Jackal's playing area occupies only about half of the screen, and your jeep isn't even centred inside it, so that when you get to the edge of the area you're quite likely to get blasted by a gun-emplacement you couldn't see. Furthermore, the range of most of your weapons is such that you have to get dangerously close to things to shoot them.

As well as the unsatisfactory gameplay, *Jackal* also suffers from oddities in the presentation. In particular, the packaging might lead you to think that there were elements of choosing characters with different capabilities or weapons; no such luck. You get what you're given – the jeep – and have to make do with it.

● Peter Connor



Spectrum version: Blast the gun, blast the tanks, blast the soldiers

CPC Version

The CPC *Jackal* is worse than the Spectrum in every respect; graphics are even more rudimentary, with miserable-looking soldiers you wouldn't really want to recruit if you were running your own army. Sound is very weak and it certainly won't tax your mind any more than on the Speccy.

GRAPHICS	4	IQ FACTOR	1
AUDIO	4	FUN FACTOR	5

ACE RATING 450

BLUE WAR

Plumbing the depths with GO!

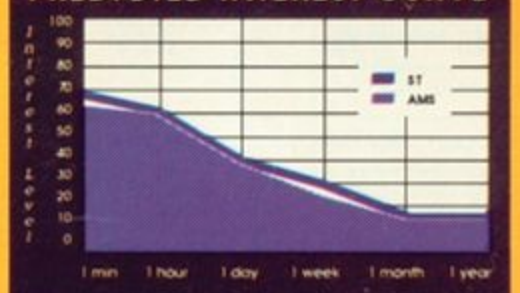
BY the very nature of the real thing, submarine simulations are likely to be slow. The emphasis is always going to be on tactical manoeuvring and the controls rather than making free with the torpedoes and blowing the enemy out of the water. *Blue War* certainly doesn't let you down in the slow and cautious department.

The game looks like a rushed release. Originally produced in France, the English version has been sloppily translated, with instructions like "Insert the disk 2 and push enter" and the compass points on your controls marked N, S, E and O (for *Ouest* instead of West). On the ST versions, the instructions tell you to press T to fire torpedoes but they actually work a lot better if you press F.

In the play, you command the submarine U79 in the Pacific Ocean in 1941. Get the craft going, dive – or not – sight your targets on radar/sonar, check the map, home in on enemy ships (this can take a very long time) and fire torpedoes at them. Go and refuel. That's it.

ST version: hunting for kills in the Pacific

PREDICTED INTEREST CURVE



Looks interesting on start-up, but the action is too low-key to hold the interest

It's just about adequate, and nice looking on the ST version, but it won't give anyone selling *Silent Service* any sleepless nights.

● Christina Erskine

RELEASE BOX		
ATARI ST	£19.99dk	OUT NOW
AMS	£14.99dk	OUT NOW

Atari ST Version

Nice graphics and some good gloomily echoing sound effects, but there's little excitement from either the action or simulation viewpoint. The poor translation from the French can be confusing.

GRAPHICS	7	IQ FACTOR	6
AUDIO	4	FUN FACTOR	2

ACE RATING 450

Amstrad Version

It may be disk only, but it's appallingly slow to respond to key presses — yes, it's keyboard only. Controlling the submarine's course is much less accurate, due to the use of numbers 1-9 to denote direction rather than compass points in degrees on the ST.

GRAPHICS	6	IQ FACTOR	6
AUDIO	4	FUN FACTOR	2

ACE RATING 425

REAPERS, assassins, fools; lend me your ears – for the darkness descends on this fair Western Isle of ours. The Northlanders, once mere men like you and I, have been touched by the malice of the Dark Sceptre and have become the Lords Of The Shadows; gripped by evil.

That, then, is the scene set for this long-awaited Mike Singleton game. The player takes charge of a band of warriors of varying ability and tries to use their differing characteristics in an attempt to befriend and recruit allies from among the other six tribes on the island. The objective is to recover and destroy the Dark Sceptre before it can do more harm.

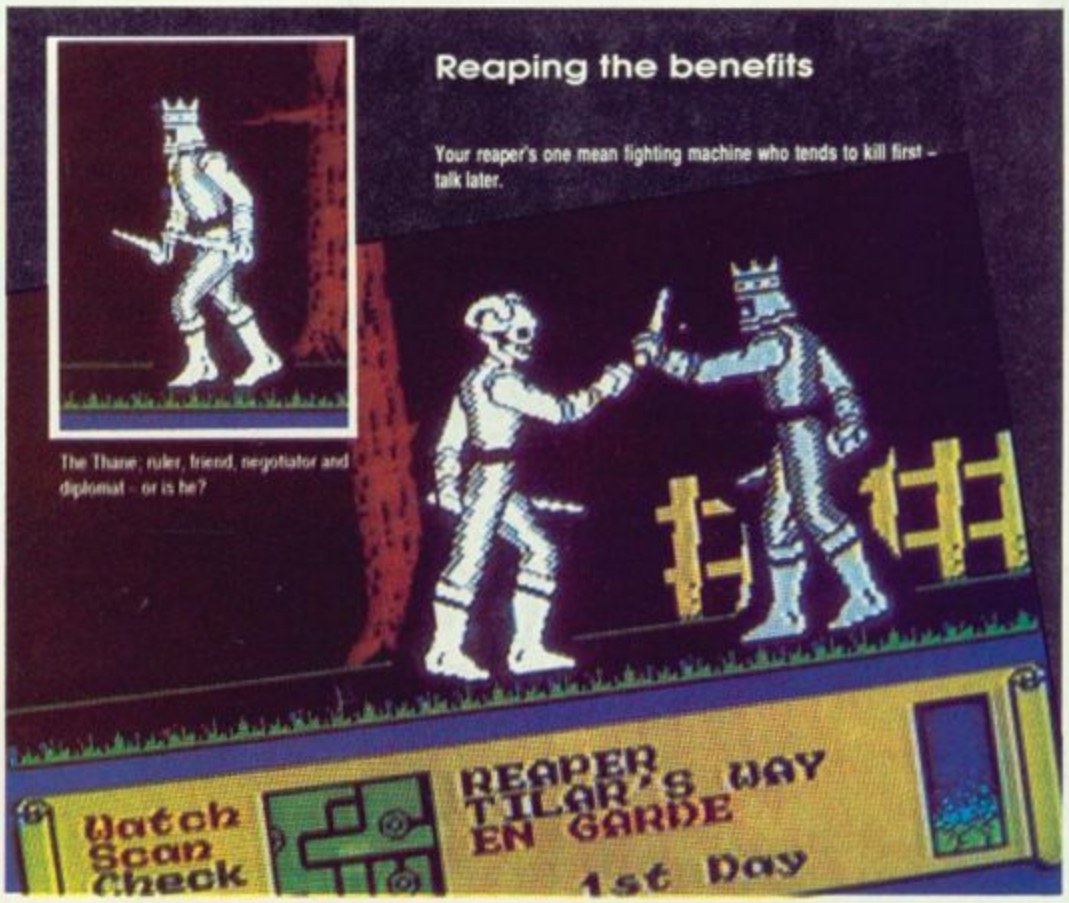
You view the game through an on-screen window that displays either a representation of the characters on their travels or a menu displaying a number of possible choices that are available to whichever character you happen to be controlling. Alternating between characters simply involves moving either your joystick (or pressing a key) left or right. You then issue up to three separate orders to the character; when you have finished, the screen switches to show your character stomping off to complete the first order (to the best of his ability.)

Orders possible include; HARASSing other warriors; BRIBE other warriors; GUARDing objects; WAIT AT places and WAIT FOR warriors. There are approx 30 different commands that can be issued to any number of your characters. As mentioned earlier, these characters have peculiar attributes which need utilising; Mystics are usually in possession of magical powers which allows them to carry out orders requiring a certain knowledge of such things, whereas Fools (despite the name) are persuasive and good talkers, which makes them handy at convincing other characters of your worthy and just crusade.

Merely attempting to take the Sceptre at the beginning of the game is not such a good idea as several steps have to be taken to ensure the power of the thing doesn't destroy you. There are lots of other objects found around the isle that can be utilised in the attempt to reach your goal, and it's up to the player to discover how these objects are best used.

Dark Sceptre has a very familiar feel about it if you've ever played *Lords Of Midnight* or *Doomdark's Revenge*, in that the game is deep and complex with enough happening to keep you engrossed and playing for months to come.

● Andy Smith



Reaping the benefits

Your reaper's one mean fighting machine who tends to kill first – talk later.

The Thane; ruler, friend, negotiator and diplomat – or is he?

RELEASE BOX		
SPEC	£7.95cs	REVIEWED
AMS	£8.95cs, £14.95dk	JAN 88

DARK SCEPTRE

Make some strange friends with FIREBIRD

Familiarity breeds contempt?

When a programmer writes a very successful game, he can find himself with a reputation to live up to. Mike Singleton is one such programmer; his immensly successful *Lords Of Midnight* and *Doomdark's Revenge* games have meant that any further release is bound to be compared to the earlier masterpieces.

In some respects *Dark Sceptre* is very comparable to the earlier games. The idea of having to recruit allies and utilise their particular abilities was seen in both of the earlier games., but despite being a very good game, Dark Sceptre just doesn't seem to create the same atmosphere as the other two games. It's involving all right, but not to the extent that either of the earlier games were. Could it be that Mike Singleton has reached the end of this particular vein?

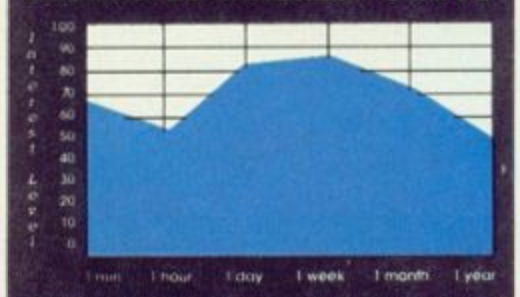
Spectrum Version

Huge colourful sprites roam the game area clashing only in combat. A black border around each figure prevents any hint of attribute clash – it's clever, effective and very well done. Sound is limited to stomping footsteps and chilling steel-on-steel effects, plus a short piece of music to indicate a recruitment or a desertion. The large game area and the amount and variety of objects that need to be manipulated properly means you'll be puzzling for quite some time. Even so, the ability to save the game position enables you to pick and play for short periods without having to cover old ground.

GRAPHICS	7	IQ FACTOR	7
AUDIO	7	FUN FACTOR	6

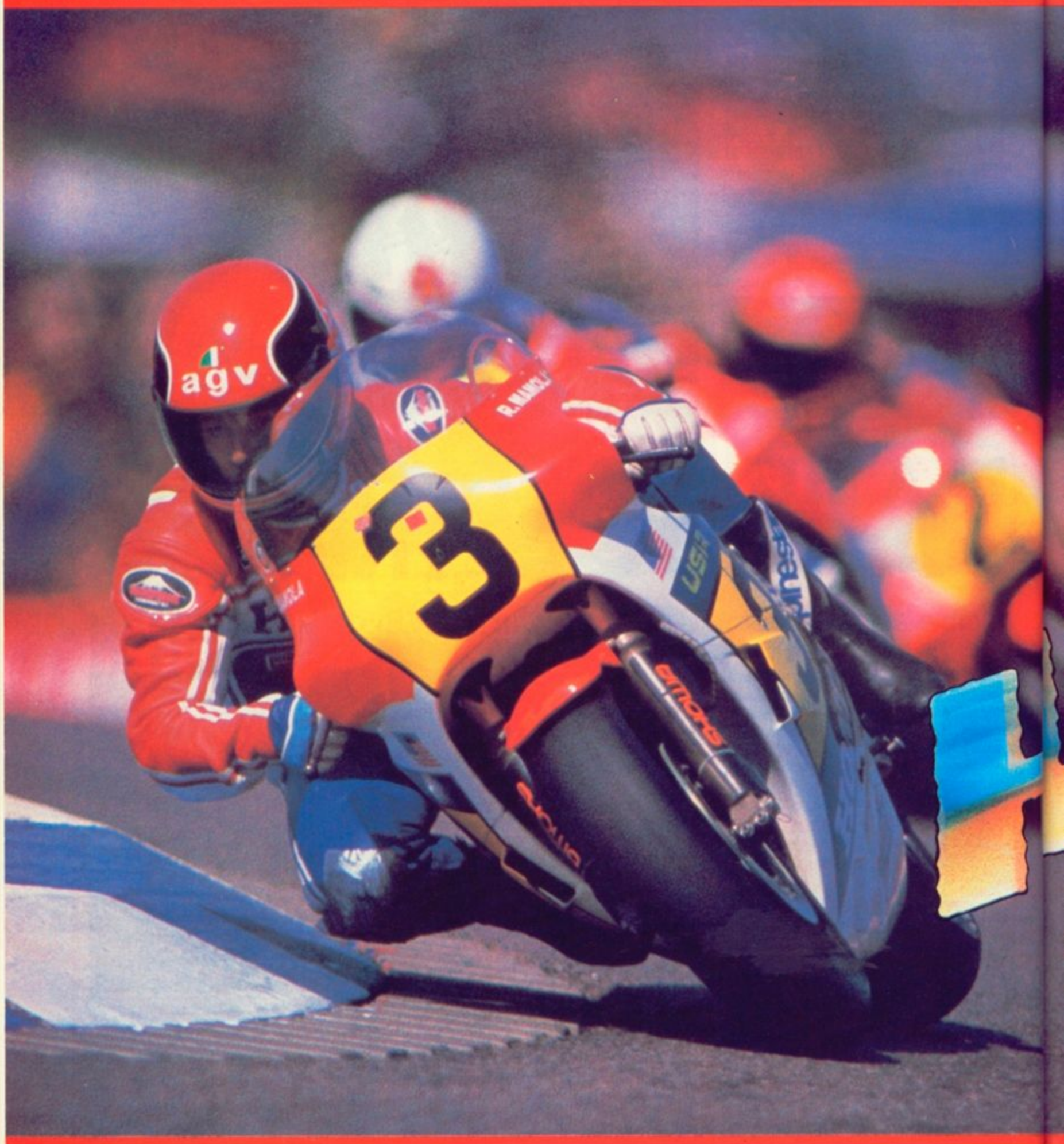
ACE RATING 856

PREDICTED INTEREST CURVE



Instant appeal gives way to panic as your forces stumble around – but find some objects and the game will reveal its depth

"...the best racing
played — even bo



SEGA®

Commodore 64/128 Cassette (£9.99) and Disk (£12.99) ZX Spectrum 48k/128k/+ (£9.99) Amstrad CPC Cassette (£9.99) and (£9)

Mail Order: Activision (UK) Ltd, Units 3 & 4 Lloyds Close, Finedon Road Industrial Estate, Wellingborough, Northants.

ngame we've ever
oter than Out Run!"

ZZAP! 64 'ANOTHER DAY AT THE ARCADES'

SUPER HANG-ON

- Officially licensed from the greatest motorcycle racing game, the thrills are so real we considered making a helmet compulsory.
- Four skill levels.
- Four music tracks.
- Push your turbo charged racing machine into 18 progressive stages racing across Asia, Africa, America and Europe.

.99) and (D) Amiga Disk (£14.99)

orthampton. Tel: (0933) 76768

Copyright 1986 Sega Enterprises Inc. (USA). All rights reserved.
Electric Dreams Software. Authorised User.

BEWARE

THE EMPTY SHELF

Don't run the risk of missing a copy of A.C.E. With many newsagents selling out fast, you should guarantee yourself a monthly copy, either by subscribing or by handing your newsagent the completed form below.

Dear Newsagent

Please order me a monthly copy of Advanced Computer Entertainment magazine (A.C.E.).

Name _____

Address _____

_____

Telephone _____

Note to newsagents. ACE is distributed by SM Distribution (Telephone 01-274 8611). It is published the first Thursday of the month prior to cover date, priced £1.50.

ESCAPE™

TELE-GAMES

Europe's Largest Stock Of Video Games & Cartridges For —

ATARI 2600 · CBS COLECO VISION™ · INTELLIVISION

IN STOCK NOW

Nintendo · SEGA®

WICO JOYSTICKS FOR NINTENDO IN STOCK NOW

The leading Video game specialists. Send for lists (state make of game)

TELEGAMES, WIGSTON, LEICESTER, LE8 1TE (0533-880445)

NEW COLECO TITLES NOW IN STOCK NOW OVER 100 TITLES TO CHOOSE FROM

ACE SMALL ADS

FREE OF CHARGE!

This new section of the magazine offers you the chance to speak directly to the huge waiting world of home computer owners.

You can place an ad of up to 30 words free of charge! So you could use it to sell a computer or peripheral, launch a user group, publicise a piece of software you've written or seek help on particular games.

One thing you CAN'T advertise is the sale or swap of software you've purchased. Such ads can be misused by software pirates.

To place an ad, just fill in this application form and send it to us. We'll then place the ad in the next available issue (published 2-7 weeks after we receive your order).

This service is ONLY available to private individuals, not trade advertisers.

ORDER FORM

Please place this advertisement in the next available issue of Advanced Computer Entertainment

Send this form to:
ACE Small Ads
Future Publishing Ltd
4 Queen St, Bath
Avon BA1 1EJ

Name _____

Address _____

_____

Telephone _____

Write your advertisement here, one word per box. Include your name, address and phone no. if you want them printed

CHRISTMAS CRACKERS

Every so often, collections of classic or not-so-classic games appear on the High Street shelves, but at this time of year, with Santa about to start his annual round of house-calls, the software industry goes compilation crazy. Graham Kidd sniffs out some unbeatable bargains...

Compilations represent one of the cheapest ways of buying games – particularly if you are buying a new computer, even more so if you're buying one that has yet to attract a large software base (such as the Spectrum Plus 3). For around the price of a new full-price release you can add five, ten, even a dozen games to your collection. Classics of yesteryear, recent hits and the odd turkey all jostle for space on the tracks of these software albums. We take a whistle-stop tour of what's on offer this yuletide so you can make sure Santa's in no doubt as to what you'd like as a stocking filler...

The Elite Collection

Elite

C16	£14.95 cs
C64/128	£14.95 cs £19.95 dk
Spectrum	£14.95 cs
Amstrad	£14.95 cs £19.95 dk

An eight-game collection that leads on coin-op conversions and includes a title that was held back from solo release – Battleships.

VOLUME I

Bombjack

A competent conversion of Tehkan's five-screen platform romp that sets a caped crusader on the track of fizzling bombs. The action is fairly straightforward – sproing around each successive screen gathering up the bombs, and gather them in the correct order for maximum points. There's no depth of plot or involved scenario to baffle the brain, pattern-learning and skillful control are all you need. Commodore owners might be a little less impressed than their Amstrad and Spectrum owning colleagues...

Frank Bruno's Boxing

Effectively a version of the arcade scrapping game, *Punch Out*, this was Elite's contender in the boxing simulation stakes nearly two years ago. Eight boxers stand between you and the World Heavyweight Championship, each with their own particular fighting style. Viewing the action from behind your fighter, the aim is to reduce your opponent's stamina and then knock him down. Three knockouts leads to a convincing defeat and an access code is given which allows the next fighter in line to be challenged. And no, Joe Bugner isn't one of the eight bruisers ranged before you in this playable sports simulation.

Commando

Capcom provided the licence and the battlefield action is fast and furious in this one-man mission of mayhem and destruction. Romping, or should that be yomping across the vertically scrolling landscape the aim is to knock out four enemy fortresses. The enemy, quite naturally takes exception to such displays of heroism and a host of soldiers armed with single shot rifles, grenades, bazookas and mortars queue up to put an end to your ambition. Fortunately your sub machine gun never runs out of ammo and there are boxes of grenades lying around the terrain to replenish your supplies. The going gets tougher the further into the game you get – should keep kill-crazy joystick wielders happy until their trigger fingers bleed.

Airwolf

Assuming the role of Vietnam veteran Stringfellow Hawke your mission at the controls of a helicopter is to rescue five scientists held prisoner in a network of caverns. Before you can get to the imprisoned boffins the complex defence system that adorns the caves has to be shot out, element by element and there's always the risk of crashing into the rock walls. A golden oldie this, dragged from the mists of time when Elite was but a fledgeling software house – still stands up as a shoot-em-up, not least because mastering the controls of the helicopter takes a while.

VOLUME II

Paperboy

This year's all-time chart hit

according to the figures published by Gallup – it proved almost impossible to dislodge from the Number One slot. Pedalling round suburbia as the representative of the local rag, the aim is to deliver papers to subscribers while avoiding pedestrians and kamikaze vehicles. Rather than place the newspapers in letterboxes you have to hurl them – miss, and you run

the risk of breaking windows. At the end of the round bonus points are collected by riding over a BMX course and indulging in a bit of target practice. Annoy too many subscribers and you're taken off the round – build up the round and the points potential increases. Not Elite's best effort at converting from the arcades, but sales levels made it a clear winner...

Ghosts 'n' Goblins

A fair maiden is captured by an evil demon, so the knight has no choice – the demon horde and the forces of the supernatural have to be overcome on a scrolling quest to the demon's lair where the lady may be rescued. Probably Elite's best arcade effort so far – true to the original and lots of fun to play. Need more be said?

Battleships

The game they dare not release! All credit to Elite for realising late in the day that this computerised emulation of the age-old pencil and paper game couldn't really stand up as a full-price release. There's nothing borrowed or blue in The Elite Collection, and this game slots in as 'the new'. An interesting diversion, but never likely to become a cult classic...

Bombjack II

Better than the original. For once, untrammelled by the constrictions of producing a faithful version of an arcade game, Elite had some fun. The caped crusader made famous by Tehkan abandons bombs (too dangerous) and collects bags of gold (more lucrative). Another platform/collecting game, the sequel boasts many more screens and includes mutating monsters that get smarter the longer you dally. The little baddies can be biffed, but that uses up energy and when the hero gets tired out he dies. Lots of fun.

Verdict: A good, solid collection of games that offers plenty of variety at a reasonable price.

Ten Great Games

Gremlin

C64/128	£9.99 cs £14.99 dk
Spectrum	£9.99 cs
Amstrad	£9.99 cs £14.99 dk

Not six of the best, but ten of the best games launched into the world over the last couple of years by Gremlin Graphics. Well nine then, and one from Vortex. Picky, picky...

Avenger

Gremlin's answer to scrolling-shooting dungeon games like *Druid* and *Gauntlet* sets an oriental hero on a quest to penetrate the lair of an evil overlord and rescue some scrolls. Inner force and endurance are depleted by the aggressive minions that try to thwart you as you kick and punch past them. A limited supply of deadly shuriken stars is available to hurl at the foe. Nothing outstandingly original here, save the moving sections of floor, but still a very playable dungeons derivative.

Future Knight

A slick platforms and ladders game set inside the hulk of a crashed spacecraft. The hero scurries round attempting to kill or avoid the beserk security droids as he hunts for extra weapons and keys and finally, the exit pass that gives access to the outside world. More spells have to be collected in the Great Outdoors before the imprisoned maiden (the cause of all this frantic activity) can be freed. A polished arcade adventure that should challenge a range of skills.

Krakout

Breakout came back into fashion this year for an as-yet-unexplained reason, and bells and whistles were added to the basic concept by a host of software houses. Gremlin weren't going to be left out and so offered up this competent variation on the theme. Playable and fun, though arguably not the best of the second breed of Breakouts, but still stands up well, particularly on a compilation.

Bounder

A maddeningly addictive platform game with one major difference – the player's viewpoint. Controlling a bouncing ball, you view the action from above, bouncing from one section of platform-paving to another as the vertical scroll forces the pace. Ten courses to negotiate with a bonus section at the end of each, all packed with twists and turns – like airblowers to drive you off course, impassable walls that have to be bounced around and extra-bounce paving slabs. Airborne hazards and volcanos make life that little bit more difficult. Addictive, frustrating and fun.

Footballer of the Year

A sort of 'Football-opoly' in which your aim is to become, yes that's it, Footballer of the Year. Strategy is involved in deciding how to apply your financial resources and a spot of arcade skill comes into play when you get to shoot at the goalmouth. Gamble wisely, play well and you could end up as F... yes, we've got the picture. An interesting, and potentially very addictive game that is playable even if you aren't a football fan.

Trailblazer

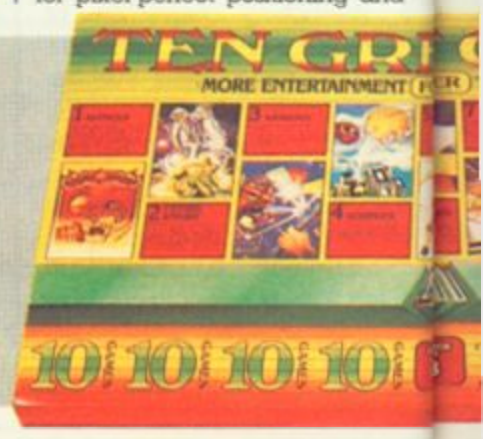
Wowee! What a race game. Dispensing with the usual souped up bike or formula racing car, you roll a ball along a chequered pathway that scrolls out of space. Gaps in the pathway must be negotiated if a time penalty is to be avoided and colour-coded sections of track speed the ball up, slow it down or confer extra jumping ability. Desperately fast and furious, quick reflexes and a good memory for the track are called for if success is to be achieved. Great fun on your own, more fun with a friend.

Highway Encounter

The only non-Gremlin game in this collection, chosen no doubt on account of its masterly use of 3D. An alien mothership lurks at one end of a long, dangerous highway and the means to destroy it, along with a team of five subservient droids is parked at the other end. Your aim: to push the deadly lastertron down the road and destroy the alien craft. Only one droid at a time can be used to shove the weapon, and a host of aliens lies in your path. Thought as well as shooting action is involved, as some patrolling aliens need to be boxed in by shoving barrels and boxes around the road.

Monty on the Run

The classic follow-up to the game that launched Gremlin. The hero mole is out of clink but wishes to flee the country – to do so money and an escape kit need to be collected by leaping round the platformed environment Monty finds himself occupying. Full of sneaky twists and tortuous puzzles, the game calls for pixel-perfect positioning and



a cool head. A dastardly difficult platform-based arcade adventure.

West Bank

Gameplay couldn't be much simpler: a door opens to reveal a goodie or a baddie. Shoot the goodie and lose, shoot the baddie before he shoots you and you win. Every now and then a little character appears in an open doorway with either a bomb or bags of money on his head. Shoot the bomb and you lose, shoot the money and you win. Move left or right to pan your field of view across the doors you have to defend, press fire to shoot. That's it, but the game's great fun to play.

Jack The Nipper

An arcade adventure with a fairly traditional 'find and move vital object to correct location' construction but featuring the added gloss of comic characters that Leo Baxendale (deviser of the Beano's Bash Street Kids) would have been proud of. Rather than being a hero, you are cast as a tiny villain, not yet out of nappies, whose aim in life is to be as naughty as possible. Chuckle at the graphics, puzzle over the fiendish riddles and find yourself absorbed.

Verdict: Essentially, 'The Best of Gremlin' – a collection of respectable games that represents excellent value and offers a wide mix of content and playing styles. A well-rounded selection that would form a good basis to a software library being started from scratch.

Live Ammo

Ocean

Amstrad	£9.95 cs £14.95
C64/128	£9.95 cs £14.95
Spectrum	£9.95 cs

A 'specialist interest' compilation this one – if you like your pixels militaristic and served up with plenty of opportunities for murdering the opposition, then *Live Ammo* is the compilation for you. Apparently W.H.Smith insisted that the name be changed to *Live Action* – we reckon it should just be called *Sick, Sick, Sick*...

Army Moves

We will fight them from the jeep, we will fight them from the air, we will fight them on foot. Such might be the motto of the Secret Operations Corps. You are one of this elite squad with a mission to retrieve a set of plans locked away in the enemy's HQ that

lies at the end of seven combat-ridden levels of play. Blast the baddies from the relative comfort of jeep while avoiding hazards in the road, take to the air in a chopper and then fight through the jungle on foot. A difficult game to play – which can lead to frustration or total addiction.

Rambo

A one-mission jaunt into the jungle on the trail of some captured comrades, this offers *Commando*-style play in a different multi-directional scrolling scenario. Purists may prefer *Commando* to this clone with Stallone, but there's a fair bit of fun to be had if killing gooks is your bag, including the opportunity to pilot a helicopter laden with your buddies (if you get that far). On the other hand, if killing 'gooks' *is* your bag, then you probably don't deserve any buddies anyway. A little short on playability, but fun for those with itchy fingers.

Green Beret

Yet again it's kill the enemy soldiers and rescue your buddies time, only it's a horizontally-scrolling killing field that you have to traverse. Armed with a knife and iron determination, three levels need to be negotiated before the mission ends, each packed with running, jumping fighting men – and a truckload of soldiers waits for you to arrive at the end of a level. Grenades and flamethrowers can be collected by killing key opponents, but the extra firepower only lasts for a few blasts. Highly playable, every bit as much fun as the arcade original.

Top Gun

A particularly good film tie-in – one that doesn't bother trying to mess around with following the plot. This is a one or two player combat flight simulator that seats the combatant in the cockpit of an F14 Tomcat (hence the Top Gun tie-in). Vector graphics, with an abstract row of dots for the horizon, are used to display the view from the driving seat, and head to head combat is what the contest is all about. Excellent fun, even if you aren't a flight simulator fan. Even more fun when you play with a friend.

The Great Escape

Yet another classic title from the Denton Designs team, as much of a movie as a game – it's well worth just watching the action for a while before starting to play. Life marches on in the POW camp, whether you try to escape or not. Prisoners and guards go about their daily routine, seemingly oblivious of your intentions. Formulate a plan, gather up the equipment and try to make good an escape. Fail, or be caught out of bounds by the guards and it's a spell in the cooler... A challenging arcade adventure with a novel presentation. Some killing, but not a lot, which just goes to prove that you don't need blood-shed to borrow your thrills from military conflict..

Verdict: Four out-and-out combat games rounded off by a spell as a POW. Shooting to kill is the main theme, although there's some opportunity to use the Grey Matter to advantage.

Magnificent Seven

Ocean

Amstrad	£9.95 cs £14.95 dk
C64/128	£9.95 cs £14.95 dk
Spectrum	£9.95 cs

Not seven, but eight games in this action collection. Which one's the 'free' game? Answers please, on a postcard...

Head Over Heels

Jon Ritman provided the world with *Batman* and then went on to force even more convoluted

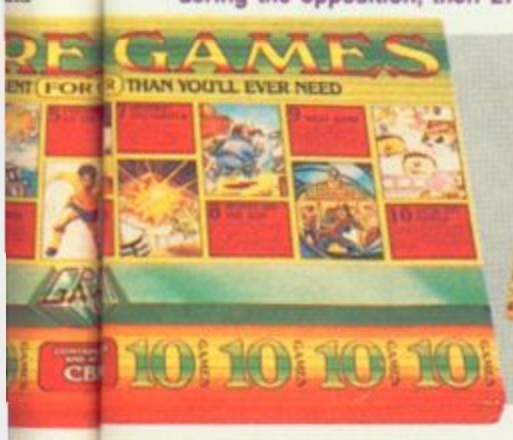
conundrums onto the isometric world of arcade adventuring with this tale of two alien secret agents teaming up to destroy the forces of evil. Nothing terribly remarkable or new in terms of the presentation or style, but what a load of game it packs! Witty sound and graphics combine with the fiendish puzzles to capture the attention of the most avid arcade adventurer.

Arkanoid

Another *Breakout* variant (see *Ten Great Games* above), this one gives you 33 frames of brick-bashing ball-batting action. One of the best examples of the genre...

Wiz Ball

A first rate game on the Commodore from a new program-



ming partnership that lost out somewhat in the transfer to the Z80. A zany arcade adventure that casts the player in the role of planetary decorator – aliens have stolen all the colour from Wizworld, rendering it a drab place and it is the task of the Wizard, aided by his magic ball and pussycat, to collect and mix pigment and thus bring colour back to the world. A charming, offbeat scenario is enhanced by the way the wiz has to interact with his cat to get the task done.

Short Circuit

A film tie-in that consists of an 3D arcade adventure section followed by a chase and shoot sequence over a scrolling landscape. The cute robot, Number Five, has to find security keys in order to escape from a factory/office complex, preferably with some weaponry, and then avoid his makers as they pursue him cross country. Great fun on the Amstrad, a little flat on the Spectrum and less fun still on the Commodore. Strange how widely the three versions differ in appeal...

Cobra

Another Stallone-clone tie-in: the battle action is against street thugs, a damsel is in distress, the backdrop scrolls horizontally and is peppered with platforms. *Green Beret* in a different guise – and three different incarnations, almost. The well-playable Spectrum version is full of humour and added touches, while the Amstrad version is a little too easy and the Commodore Cobra more of a slow-worm than a snake.

Frankie Goes To Hollywood

A true classic that brought a new dimension to both tie-ins and arcade adventures. Denton Designs excelled themselves – not a Frankie to be seen anywhere in the game. Instead, the central character wanders round a terrace of ordinary suburban houses, searching for objects by touch and using them to enter sub-games. Love, sex, war and religion factors have to be increased until they reach maximum whereupon the player becomes a whole person. Only then can you contemplate entering the pleasure dome... A very unusual playing style, involving a running sub-game in which you have to solve a murder... An essential part of anyone's software collection, if only because it's so different.

Yie Ar Kung Fu

Imagine's version of this Konami coin-op hit went down better than *Way of the Exploding Fist* in some quarters. Eight opponents range themselves against the humble Oolong, defender of right and justice, bringing into play their own personal weapons and fighting styles. Kick and punch your way past the opposition to fame and glory – if you can. Great fun for fight freaks.

...And that's not all!

You should find a fair few more compilations jostling for shelf space over the next month or two. **Three Coin-Op Classics** is on its way from US Gold at £9.99 for instance, featuring *Breakthru, Crystal Castles* and *Kung Fu Master* (not the most powerful trio of arcade versions ever assembled). Then there's Beau Jolly's **Five Star Games** (again featuring two freebies, making seven) that comprises *Alien, Way of the Exploding Fist, Strike Force Harrier, Trap Door, Firelord* and *Tau Ceti* for everyone, with Amstrad owners collecting *Tempest* and Commodore and Spectrum people receiving *Uridium Plus*. A powerful collection for £9.95 on cassette or £14.95 on Commodore or Amstrad disk.

It doesn't all stop at Christmas, either. Should you find there's still some game-buying cash in the kitty in January, Hewsons' **Four Smash Hits** wouldn't be a bad buy, offering *Zynapse, Exolon, Ranarama* and *Uridium Plus* for £9.99 on cassette or £14.95 on disk (including Spectrum +3 if demand makes it viable).

Not just for kids...

This year's charity compilation, **Kids Play**, offers ten pretty good games for £9.99 on cassette and is well worth checking out – not least because all the games have been donated to the cause and any profits made are sent scurrying off to the NSPCC to help disadvantaged youngsters.

Solid Gold

US Gold

Amstrad	£9.99 cs £19.99 dk
C64/128	£9.99 cs £14.99 dk
Spectrum	£9.99 cs £19.99 dk

Ace of Aces

Remember *Dambusters*? Well this is arguably what *Dambusters* should have been but never quite was. Ensconced in the cockpit of a Mosquito you get to fly missions against Germany, choosing whether to intercept bombers or rockets or perhaps going for a U Boat pen or train. Half flight simulator (no landing or taking off skills called for) and half arcade combat game, this should keep potential Bigglesworths pleasantly amused – you don't have to pore over a huge manual and practice endlessly to start flying competently.

Infiltrator

A veritable pot-pourri of gamestyles is on offer in this mission to save the world from yet another madman and his henchpersons. Pilot a helicopter to the base in the flight-simulation sequence, avoid, kill or stun the guards in the madman's den and search the buildings for clues and vital information. Once the secret plans have been photographed, fly back to base and start all over again. A secret agent game that auditions all the skills needed to join the secret service...

Winter Games

An octet of icy action games from Epyx, the sports simulation specialists. Ski, skate or take the challenge of a cresta run in a bobsled. All the gloss, polish and playability that have made Epyx leaders in the field – as much fun as *Summer Games, World Games* and *California Games*.

Gauntlet

A hit conversion of a hit arcade game. Play solo or with a friend, choosing which of the four intrepid adventurers you wish to take into the walled dungeons. Collect food, treasure and potions, kill the nasties and attempt to conserve strength for the later levels. An excellent hack 'n' slay excursion into the world of scrolling dungeons.

Leaderboard

THE golf simulation. Until *Leaderboard* arrived on the scene, golf was a game that hadn't managed to fire the imagination of game players – you either had the 'purist' simulations (deadly accurate, deadly boring) or the so-called 'arcade' simulations (little stick men on green backgrounds). With *Leaderboard*, the controls were simplified, the view of the fairway given from behind the tee and the game finally made playable and fun for all.

Verdict: A good mix of gamestyles assembled from the better part of US Gold's back catalogue – a lot more user-friendly on disk, however.

Budget Bargain

Yes, there's even a budget compilation – Micro Value are offering **Four Great Games Volume Two** for £3.99, and cover the Electron, MSX, Atari XL and C16/+4 as well as the three main 8-bit games machines, offering different sets of venerable old games.

TAITO
COIN-OP

RASTAN

...the Warrior King

The latest hit coin-op from Taito.

Lands that produce men of legend, dragon slayers, lie in his shadow – guardians of evil fear his fire spewing sword, the axe he weilds as swift as lightning. State of the art programming makes a true simulation of the Arcade for your home micro, enjoy superb graphics and realistic action as RASTAN takes on a world of dangers – magical wizards, fire breathing lions, bats, snakes, skeletons and finally the living dead.

Is it more than you can handle?

Imagine ...the name of the game

Spectrum	7.95 Cass.	SPECTRUM + 3 DISK 14.95
Commodore	8.95 Cass.	12.95 Disk
Amstrad	8.95 Cass.	14.95 Disk

Licensed from Taito Corp., 1986. Programmed for Amstrad, Spectrum, Commodore by Imagine Software.

Imagine Software Limited · 6 Central Street · Manchester M2 5NS · Tel: 061 834 3939 · Telex: 669977

10 Computer Hits 4

Beau Jolly

Amstrad	£9.95 cs £13.95 dk
C64/128	£9.95 cs £13.95 dk
Spectrum	£9.95 cs

...And two 'free' games makes twelve. Everyone gets a copy of *Spindizzy*, the first-rate Marble Madness-esque spinning top game and *Dandy*, Electric Dreams' pitch at the *Gauntlet*-clone market which came a bit late and proved less than totally impressive.

In addition to the aforementioned duo, five games are common to all three formats:

Starquake

An excellent, cutesy, arcade adventure from the programming parlour of Steve Crow, guaranteed to amuse and entertain.

Deactivators

A complicated puzzle game that requires you to clear buildings of bombs and reassemble a computer using Deactivator droids. Plenty of brainpower is needed to solve this unusual game.

Sacred Armour of Antiriad

A beautifully presented platforms-and-mapping arcade adventure. Collect up the components needed to activate an anti-radiation suit, clamber into it and destroy the alien mothercraft that is terrorising your tribe.

Bride of Frankenstein

Go off in search of Frankie's missing organs in yet another arcade adventure – this time the action is a little quirky, but fun nevertheless.

Uchi Mata

Probably the only judo simulation so far attempted on computer – and accuracy is the order of the day. To begin with, play is relatively easy, but serious thought as well as serious practice is needed if you are to progress to beating the more skilled opponents. An outwardly complicated game that offers rewards if you persevere.

The Spectrum and Commodore collections 'share' three more games:

Classic Snooker

A straightforward pot-the-balls baize production.

Skate Rock

An unpolished but playable skateboarding excursion where points are awarded for collecting flags and avoiding hazards on a series of urban courses.

Alleykat

A fast-action scrolling race game from C64 cult programmer Andrew Braybrook.

The Commodore collection is rounded off with:

Magic Madness

An unusual and appealing subterranean platform adventure.

Iridis Alpha

The excellent, fast and furious Jeff Minter shoot em up that includes sub-games where you can take a rest from the energy-collecting and alien-killing which forms the core of the main game.

Spectrum owners can thrill to the delights of tomb-exploration in the 3D arcade adventure *Pyracurse* or go on a little private investigation all of their own with *Contact Sam Cruise*.

Amstrad owners receive a different set of five games along with the five common titles:

Triaxos

Sets you in a fairly traditional 3D isometric adventure scenario on the quest to rescue a man who is capable of saving the human race. The pace of the game is a little slow and the puzzles less than mind-twisting, but there's enough to keep you busy during a rainy afternoon.

City Slicker

Off you go in pursuit of the equipment to defuse a terrorist bomb, following a fairly traditional arcade adventure format set in London and featuring many familiar landscapes.

Pulsator

A straightforward maze game that doesn't impress with the graphics but sets quite a tricky task involving the rescue of five captives.

Elektraglide

A race game with a difference – you race against time on a set of abstract courses, hindered by spheres, cubes and bolts of energy dropped from the skies. Different, but a bit dodgy...

Revolution

A tortuously tricky maze puzzle in which the player seeks to cross successive levels that make up a hostile 3D landscape, deactivating two cubes on each level. In control of a bouncing ball, the aim is to avoid falling into a bottomless chasm, escape the clutches of a variety of abstract but mobile aliens and touch first one cube and then the other within a rapidly diminishing time limit. Tricky stuff indeed.

Verdict: A fairly random selection of games presented here, some classics mixed in with some mediocre or less successful titles. Nevertheless, good value for money and a reasonable mix 'n' match of gamestyles.

Game Set and Match

Ocean

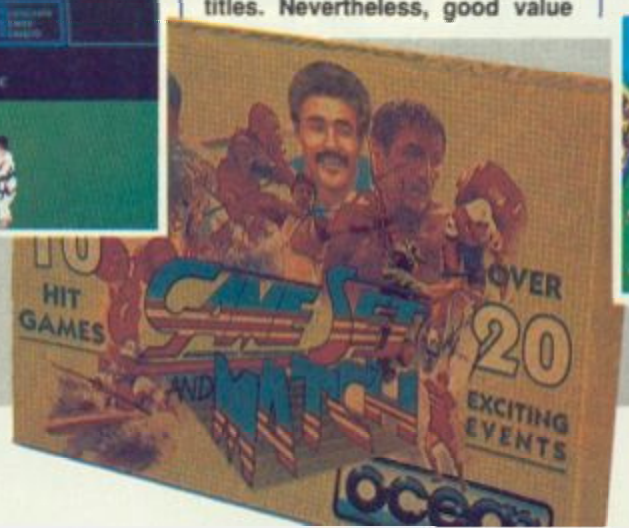
Amstrad	£12.95 cs £17.95 dk
C64/128	£12.95 cs £17.95 dk
Spectrum	£12.95 cs

Twenty two sporting events in one package – enough material to form the basis of a pretty neat armchair olympics that should keep joystick sports fans working out well into the New Year.

Eight games are common to all formats: ***Basketball***, ***Barry Mc Guigan's World Championship Boxing*** which sets you on the quest to beat Barry himself an offers the opportunity to set up the personality of your contender and train him between each bout in the lead up to the challenge fight; ***Jonah Barrington's Squash***; the classic coin-op joystick waggler ***Hypersports*** featuring six events; ***Ping Pong***, again from the arcades; ***Daley Thompson's Supertest*** – an octathlon rather than a decathlon; and ***Super Soccer***.

Commodore owners round off their work out with ***Snooker*** and tennis in ***Matchpoint***, while Spectrum and Amstrad athletes take a gentle bar-room break with ***Pool*** before going their separate ways onto the tennis courts, wih Konami's ***Tennis*** and ***Matchpoint*** respectively.

Game Set and Match **offers a positive orgy of muscle-wrenching athletic action and represents stupendous value to anyone who prefers to work up a sweat in front of the TV rather than out there on the field or in the court. This is the only specialist, theme compilation on offer this Christmas and forms an essential, good value purchase if sporting simulations are your mainstay. Just about all the games on offer are high quality and were very well received on their first outing, but some of them do go back rather a long way...**



SHEKHANA COMPUTER SERVICES

Order by credit line 01-348 2907 (24 hrs)

	OUR PRICE
SEGA	
MASTERSYSTEM	99.95
LIGHT PHASER	44.95
3-D GLASSES	39.95
CONTROL STICK	14.95
MY HERO	14.95
GHOST HOUSE	14.95
TEDDY BOY	14.95
TRANSBOT	14.95
SUPER TENNIS	14.95
F-16 FIGHTER	14.95
MISSILE DEFENCE 3-D	24.95
SPACE HARRIER	24.95
OUT RUN	24.95
ROCKY	24.95
ZAXXON 3-D	24.95
CHOPLIFTER	19.95
FANTASY ZONE	19.95
BLACK BELT	19.95
ACTION FIGHTER	19.95
PRO WRESTLING	19.95
GREAT GOLF	19.95
WORLD SOCCER	19.95
THE NINJA	19.95
ALEX KIDD	19.95
WONDER BOY	19.95
QUARTET	19.95
ZILLION	19.95
ENDURO RACER	19.95
WORLD GRAND PRIX	19.95
SECRET COMMAND	19.95
ASTRO WARRIOR/PIT POT	19.95
ALEX KIDD IN MIRACLE WORLD	19.95
SHOOTING GALLERY	19.95
GANGSTER TOWN	19.95
NINTENDOSYSTEM	
DELUXE SET	359.99
CONTROL DECK	99.95
GYROMITE	32.95
STACK-UP	32.95
DUCK HUNT	29.95
GUMSHOE	29.95
HOGANS ALLEY	29.95
EXCITE BIKE	29.95
MACH RIDER	29.95
WRECKING CREW	29.95
GOLF	19.99
BASEBALL	19.99
SOCCER	19.99
TENNIS	19.99
10 YARD FIGHT	19.99
URBAN CHAMPION	19.99
SUPER MARIO BROTHERS	19.99
BALLOON FIGHT	19.99
CLU CLU LAND	19.99
ICE CLIMBER	19.99
KUNG FU	19.99
PINBALL	19.99
BBC	
SPITFIRE 40 - D2	7.95
ARKANOID	7.50
URIDIUM	7.95
CRAZY RIDER - D1	7.95
TRIVIAL PURSUIT - D4	12.95
ELITE - D4	11.95
ELITE - (3.5' DISK)	16.95
REVS - D2	10.95
REVS - (3.5' DISK)	16.95
ELITE - ELECTRON	11.95
PAPER BOY - D2	7.95
C16/PLUS4	
ACE 2 - (+4ONLY)	7.95
ACE - C16	7.95
ACE - (+4 ONLY)	7.95
GUNSLINGER - C16	4.99
GREMLINS - C16	4.99
BEACHHEAD - (C16 & +4)	4.99
ELITE HIT PACK - C16	8.50
SCOOBY DOO - C16	6.95
JET SET WILLY(C16 & +4)	6.95
BOMB JACK 2 - C16	6.95
B.CLOUGHS FOOTBALL(+4 ONLY)	13.95
PAPER BOY - C16	6.95
MSX	
SILICON DREAMS	13.99
WINTER GAMES	7.99
SURVIVOR	7.99
WORLD GAMES	7.99
KNIGHT ORC	13.99
GNOME RANGER	8.50
VAMPIRE KILLER - MSX2	20.95
MAZE OF GALIOUS	18.95
THE GOONIES	17.95
PENGUIN ADVENTURE	17.95
CUBERT	17.95
JACK THE NIPPER	7.95
TRAIL BLAZER	7.95
FUTURE KNIGHT	7.95
JET SET WILLY 2	7.95
ACE OF ACES	7.99
MONKEY ACADEMY	17.95
JEWELS OF DARKNESS	13.99

	OUR PRICE
COMMODORE	
BUBBLE BOBBLE - D1	6.95
FLYING SHARK - D1	6.95
ELITE 6 PACK II - D2	7.95
DRUID II - D1	6.95
REVS PLUS - D1	7.50
BARBARIAN - D2	7.50
RENEGADE - D2	6.95
SOLOMONS KEY - D2	7.50
SOLID GOLD - D2	7.99
ANNALS OF ROME - D3	10.95
MEGA APCALYPSE - D2	7.50
OUT RUN - D2	7.50
WORLD CLASS L'BOARD - D2	7.50
ADVANCED ART STUDIO - D5	19.95
GUILD OF THIEVES (DISK ONLY)	¶4.95
QUEDEX - D2	7.50
GAUNTLET II - D2	7.50
STAR WARS - D2	7.50
NOT A PENNY MORE	12.95
INDIANA JONES - D2	7.50
BARDS TALE - DISK	12.99
KNIGHT GAMES II - D2	7.50
TRACK & FIELD - D2	6.95
BATTLE OF GUARDALCANAL - D2	7.50
ARMAGEDDON MAN - D2	10.95
JACK THE NIPPER II - D2	7.50
HIGH FRONTIER - D2	7.50
DEATH WISH 3 - D2	7.50
THE LAST NINJA - D2	7.50
TRANTOR - D2	7.50
ON THE TILES - D1	6.95
CALIFORNIA GAMES - D2	7.50
IMPLOSION - D2	7.50
+ MINI OFFICE II - D4	14.95
BISMARK - D2	7.50
MARBLE MADNESS - D2	7.99
ENDURO RACER - D2	6.95
AZIMUTH HEAD ALIGNMENT	7.95
ELITE - D3	11.95
SILICON DREAMS - D2	11.95
MYSTERY OF THE NILE - D1	6.95
SIDE WIZE - D1	6.70
TRIVIAL PURSUIT - D4	12.95
MAGNATRON - D2	6.95
ACE 2 - D2	7.50
TANK - D1	6.95
SLAINE - D2	7.50
KNIGHT ORC - D3	11.95
JEWELS OF DARKNESS - D2	11.95
BANKOK KNIGHTS - D2	7.50
FOOTBALL DIRECTOR	6.95
OCP ART STUDIO - D3	11.95
INFILTRTOR 1 + 2 - D2	7.95
WARGAMES CONS - DISK	14.95
CARRIER FORCE - DISK	24.95
AIRBOURNE RANGER - D4	12.95
DEFENDER OF CROWN - DISK	12.99
STEALTH FIGHTER - D4	12.95
ALT WORLD GAMES - D2	7.50
PHM PEGASUS - D2	7.99
G. LINEKERS FOOTBALL - D2	7.50
SORCEROR LORD - D3	10.95
SIDE ARMS - D1	7.50
COMBAT SCHOOL - D2	6.95
FLASH POINT - D2	6.95
GRYZOR - D2	6.95
MAD BALLS - D2	6.95
PHANTYS - D2	6.95
PSYCHO SOLDIER - D2	6.95
RASTAN - D2	6.95
VICTORY ROAD - D2	6.95
LUCAS FILMS 4 - D2	7.95
RAMPAGE - D2	7.50
GALACTIC GAMES - D2	7.50
KNIGHTMARE - D2	7.50
CHARLIE CHAPLIN - D2	7.50
720 - D1	7.50
RYGAR - D2	7.50
JACKEL - D2	6.95
SUPER HANG ON - D2	7.50
PEGASUS BRIDGE - D3	10.95
THUNDER CATS - D2	7.50
DRILLER - D2	7.50
COMPENDIUM - D2	7.95
BLOOD VALLEY - D2	7.50
NEBULUS - D2	6.95
MORPHEUS - D2	6.95
THROUGH THE TRAP DOOR - D2	7.50
ROY OF THE ROVERS - D2	7.50
BRAVESTARR - D2	7.50
RAMPARTS - D2	7.50
SEPTEMBER - D2	7.50
FIRETRAP - D2	7.50
EYE - D2	7.95
STREET BASEBALL - D2	7.50
GNOME RANGER - D2	7.95
DELUXE SCRABBLE - D3	10.95
LIVE AMMO - 5 HITS - D2	7.95
FOOTBALL MANAGER II - D2	7.50
IMPOSSIBLE MISSION II - D2	7.50
JINXTER - DISK	14.95
RED L.E.D - D2	6.95
MASK - D2	7.50
GAME SET & MATCH - D4	10.95
DESTROYER - DISK ONLY	12.99
FIREZONE - D3	10.95
GUNSHIP - D4	12.95
TAI PAN - D2	6.95
WORLD TOUR GOLF - D2	7.99
MEAN STREET - D2	7.50
INTER KARATE PLUS - D2	7.50
ENCOUNTER - D2	7.50

	OUR PRICE
COMMODORE	
BUGGY BOY - D2	7.50
SPY CATCHER - D3	10.95
LEATHER NECKS - D3	10.95
FINAL FRONTIER - D3	10.95
FORTRESS AMERICA - D3	10.95
YOGI BEAR - D2	7.50
SHOOT EM UP CONS KIT - D4	12.99
GEEBEE AIR RALLY - D2	7.50
AMX MOUSE	69.95
+ C2N DATA RECORDER	29.95
NEOS MOUSE + CHEESE	29.95
PHANTOM	75.99
EXPERT + ESM	28.99
+ ACTION REPLAY MK 3	28.99
FREEZE MACHINE	27.99
SLIMLINE 64 KEYBOARD	19.95
AMIGA	
BARBARIAN (PYGNOSIS)	19.95
HITCHHIKERS GUIDE	24.95
CALIFORNIA GAMES	19.95
DEFENDER OF THE CROWN	24.95
KNIGHT ORC	14.95
JEWELS OF DARKNESS	14.95
STARGLIDER	19.95
GUILD OF THIEVES	19.95
THE PAWN	19.95
SILICON DREAMS	14.95
JINXTER	19.95
CARRIER COMMAND	14.95
TIME & MAGIK	19.95
DICK SPECIAL	19.95
TERRAPODS	19.95
LEISURESUIT HARRY	19.95
3D HELICOPTER SIMULATION	19.95
POLICE QUEST	19.95
THEXDER	19.95
TRACKER	19.95
EARL WEAVERS BASEBALL	19.95
SKYFOX	12.99
GNOME RANGER	12.99
MARBLE MADNESS	15.95
CHAMPIONSHIP FOOTBALL	19.95
FLIGHT SIMULATOR II	39.95
KAMPFAGRUPPE	24.95
LEADERBOARD	19.95
PHANTASIE 3	19.95
S.D.I	24.95
ULTIMA 3	19.95
GAUNTLET	19.95
LURKING HORROR	19.95
IMPACT	12.99
10 X 3.5 DISKS	19.95
ATARI	
STAR TREK	14.95
SUB BATTLE SIMULATION	19.95
S.D.I	24.95
MERCENARY COMPENDIUM	19.95
LEADERBOARD	19.95
JOYSTICK EXTENSION LEAD	6.95
GETTYSBURG	24.95
TRIVIAL PURSUIT	14.95
SKULLDIGGERY	15.95
BLACK LAMP	14.95
GNOME RANGER	12.99
BAIRDS TALE	19.99
DEFENDER OF CROWN	24.99
SKYFOX	12.99
DEGAS ELITE	22.95
CAPTAIN AMERICA	14.95
WIZARDS WARZ	14.95
BRAVE STARR	14.95
ENDURO RACER	19.95
ARKANOID	14.95
WIZBALL	14.95
FLYIING SHARK	14.95
NORD & BERT	24.95
GAUNTLET II	14.99
BACKLASH	14.95
ALT WORLD GAMES	14.99
G. LINEKER FOOTBALL	14.99
RANA RAMA	14.99
THEXDER	19.99
POLICE QUEST	19.99
3D HELICOPTER SIMULATION	19.99
LEISURESUIT HARRY	19.99
BARBARIAN (PALACE)	12.99
BARBARIAN (PYGNOSIS)	19.95
TERRAPODS	19.95
RENEGADE	14.95
SCENERY DISK III	19.95
FLIGHT SIMULATOR II	39.95
TRANTOR	14.99
TAI PAN	14.95
ULTIMA 3	19.95
BUBBLE BOBBLE	14.95
SENTINAL	14.95
DICK SPECIAL	19.95
TIME & MAGIK	14.95
CARRIER COMMAND	19.95
JINXTER	19.95
UNIV'L MILITARY SIMULATOR	19.95
ADVANCED ART STUDIO	19.95
TRACKER	19.95
STARGLIDER	19.95
JEWELS OF DARKNESS	14.95
KNIGHT ORC	14.95
THE PAWN	19.95
GUILD OF THIEVES	19.95
SILICON DREAMS	14.95
AIRBALL	19.95
AIRBALL CONST KIT	12.95
CHESS MASTER 2000	16.95

	OUR PRICE
ATARI 8-BIT	
GNOME RANGER	7.95
KNIGHT ORC - D2	11.95
JINXTER - DISK	16.95
ACE OF ACES	7.95
DRUID - D2	7.95
GUILD OF THIEVES - D2	11.95
JEWELS OF DARKNESS - D2	11.95
SILICON DREAMS - D2	11.95
TRIVIAL PURSUIT - D4	12.95

HARDWARE
SPECIAL OFFERS

C64 CONNOISSEUR COLLECTION PACK
CBM 64C COMPUTER
C2N DATA RECORDER
NEOS MOUSE AND CHEESE
6 X SOFTWARE
GRAND MASTER CHESS
CLUEDO, MONOPOLY, SCRABBLE
PITMAN TYPING TUTOR
AND RENAISSANCE.
PLUS FREE 2 GAMES CASSETTES.
R.R.P £199.99 £189.95

CBM 64C COMPUTER
C2N DATA RECORDER
FANTASTICK III JOYSTICK
PLUS FIVE FREE GAME CASSETTES.
R.R.P £179.95 £169.95

128 COMPUTER COMPENDIUM PACK
COMMODORE 128 COMPUTER
COMMODORE DATA RECORDER
COMMODORE JOYSTICK
MUSIC MAKER KEYBOARD
FREE SOFTWARE:
SPIRIT OF THE STONES CASSETTE
JACK ATTACK CARTRIDGE
INTERNATIONAL SOCCER CARTRIDGE
R.R.P £279.95 £259.95

1541C DISK DRIVE
PLUS FREE:
20 BLANK DISKS
PLUS FREE GAMES DISK
R.R.P £199.99 £189.95

COMMODORE 64C COMPUTER
SEIKOSHA SP180 VC PRINTER
R.R.P £349.95 £309.95

COMMODORE 1901 COLOUR MONITOR
RGB + PAL SWITCH
R.R.P £299.95 £289.95

SEIKOSHA SP180 VC PRINTER WITH SERIAL CABLE AND EASY SCRIPT WORD PROCESSOR
R.R.P £199.95 £179.95

COMMODORE 64C
PLUS FREE GAME
R.R.P £169.95 £149.95.

COMMODORE C128 COMPUTER
R.R.P £199.95 £179.95

COMMODORE PLUS 4 COMPUTER PACK
PLUS 4 COMPUTER
CBM DATA RECORDER, JOYSTICK
PLUS FREE:
10 CASSETTE SOFTWARE
THREE CARTRIDGE SOFTWARE
R.R.P £99.95 £79.95

DISK DRIVES:
EXCELERATOR + £149.95
EXCELERATOR + AND GEOS
R.R.P £159.95 £155.95
EXCELERATOR + GEOS PLUS FREEZE MACHINE.
R.R.P £179.95 £175.95

ZX SPECTRUM PLUS 3
PLUS JOYSTICK
PLUS 6 GAMES £199.00

AMIGA 500 + MOUSE + DELUXE PAINT
PLUS FREE 10 X DISKS
R.R.P £575.00 £525.00

ATARI 520 STFM + MOUSE
R.R.P £299.99 £299.99

ABOVE HARDWARE AVAILABLE FROM OUR BRANCH AT 655 GREEN LANES LONDON N 8 OQY OR BY MAIL ORDER PLEASE ADD £5 PER MACHINE FOR P+P.

	OUR PRICE
SPECTRUM	
BUBBLE BOBBLE	5.95
FLYING SHARK	5.95
DRUID II	5.95
BARBARIAN	7.50
THUNDER CATS	5.95
SPY V SPY III	7.50
CONFLICTI	10.95
MASK	5.95
SLAINE	7.50
GAUNTLET	6.99
SUPER SPRINT	7.50
TANK	5.95
NEMISES	5.95
RYGAR	6.99
IMPOSSIBLE MISSION II	6.99
RED L.E.D	6.99
ELITE	9.95
THEATRE EUROPE	4.99
AZIMUTH HEAD ALIGNMENT	7.95
BATTLE OF BRITAIN	4.99
GAME SET & MATCH	10.95
BLITZKRIEG	7.95
WORLD GAMES	6.99
WORLD CLASS L'BOARD	6.99
FREDDY HARDEST	5.95
JACKEL	5.95
SCALEXTRIC	7.50
BANKOK KNIGHTS	7.50
ELITE TRIO HIT PACK	7.95
T.T. RACER	7.50
CALIFORNIA GAMES - DISK	10.95
CALIFORNIA GAMES	6.99
JEWELS OF DARKNESS	11.95
SILICON DREAMS	11.95
STARGLIDER	11.95
LAST NINJA	7.50
ANIMATOR I	7.95
ENDURO RACER	7.50
FOOTBALL DIRECTOR	6.95
ROAD RUNNER	6.99
ARTIST II - 48K	12.95
OCP ART STUDIO	11.95
ARNEHAM	7.95
RENEGADE	5.95
GUNSHIP	7.50
SENTINAL	7.50
TAI PAN	5.95
PAPER BOY	5.95
THE PAWN - 128K	11.95
ARTIST II - 128K	14.95
JACK THE NIPPER II	5.95
SILENT SERVICE	7.50
MERCENARY	7.50
EXPLODING FIST II	6.95
STAR WARS	7.50
NOT A PENNY MORE	12.95
NAPOLEAN AT WAR	7.95
OUT RUN	7.50
SOLOMANS KEY	6.95
DESERT RATS	7.95
GAUNTLET II(DISK £10.95)	7.50
VULCAN	7.95
ACE II	6.99
ACE II - 128K	7.50
DARK SEPTRE	5.95
SOLID GOLD (DISK £10.95)	7.95
HEADCOACH	2.99
GRYZOR	5.95
GNOME RANGER	7.95
S. STREET BASKETBALL	7.50
ANNALS OF ROME	10.95
BUGGIE BOY	5.95
GAME OVER	5.95
DURRELL 4 VOL II	7.95
LEADER BOARD	7.50
P.A.W	19.95
BATTLEFIELD GERMANY	10.95
ARKANOID	5.95
COMET GAME	2.99
SILENT SERVICE	7.50
MERCENARY	7.50
GRAPHIC CREATOR	19.95
ADV ART STUDIO - 128K	19.95
FOOTBALL MANAGER II	7.50
OCEANS 5 HITS	7.95
IKARI WARRIORS	5.95
ALT WORLD GAMES	5.99
G. LINEKER FOOTBALL	5.99
SECOND CITY	5.95
SORCERER LORD	10.95
COMBAT SCHOOL	5.95
FLASH POINT	5.95
MAD BALLS	5.95
MATCH DAY II	5.95
PHANTYS	5.95
PSYCHO SOLDIER	5.95
RASTAN	5.95
VICTORY ROAD	5.95
LUCAS FILM 4	7.99
RAMPAGE	7.99
GALACTIC GAMES	5.99
KNIGHTMARE	7.50
CHARLIE CHAPLIN	7.50
720	6.99
CHAIN REACTION	5.95
SUPER HANG ON	7.50
PEGASUS BRIDGE	10.95
THUNDER CATS	5.95
DRILLER	7.50
COMPENDIUM	5.99
BLOOD VALLEY	5.99

	OUR PRICE
SPECTRUM	
MAGNETRON	5.95
NEBULUS	5.95
THROUGH THE TRAP DOOR	7.50
ROY OF THE ROVERS	7.50
BRAVESTARR	6.99
RAMPARTS	6.99
FIRETRAP	7.50
EYE	7.95
RAM TURBO	12.95
+ RAM MUSIC MACHINE	49.95
10 X 3' DISKS	26.95
MULTIFACE 3	44.95
PLUS 2 DUST COVER	4.99
KEMPSTON INTERFACE	7.95
AMX MOUSE	69.95
LIGHTPEN + INTERFACE	19.95
AMSTRAD	
FOOTBALL DIRECTOR	6.95
GAME SET & MATCH - D3	10.95
AZIMUTH HEAD ALIGNMENT	7.95
MONOPOLY - D2	7.95
SCRABBLE - D2	7.95
TRIVIAL PURSUIT - D4	12.95
INFILTRATOR 1 + 2 - D2	7.50
GAUNTLET II - D2	7.50
ARMAGEDDON MAN	10.95
BUBBLE BOBBLE - D2	6.95
SOLOMANS KEY - D2	7.50
WORLD CLASS L/B - D2	7.50
ELITE 6 PACK II - D2	7.95
ELITE - D3	11.95
JACKEL - D2	6.95
INDIANA JONES - D2	7.50
URIDIUM	2.99
DEATH WISH 3 - D2	7.50
TAI PAN - D2	6.95
RENEGADE - D2	6.95
+ MINI OFFICE II - D3	12.95
OUT RUN - D2	7.50
SUPER SPRINT - D2	7.50
TANK - D2	6.95
GUILD OF THIEVES - DISK	16.95
KNIGHT ORC - D4	11.95
SILICON DREAMS - D4	11.95
JEWELS OF DARKNESS - D4	11.95
THE MUSIC SYSTEM - D4	13.95
ADV MUSIC SYSTEM	24.95
OCP ART STUDIO	11.95
ADV ART STUDIO - DISK	19.95
STAR GLIDER - D4	11.95
VULCAN	7.95
DESERT RATS	7.95
SOLID GOLD - D2	7.95
BRAVESTARR - D2	7.50
KNIGHTMARE - D2	7.50
BUGGY BOY - D2	6.95
FIREZONE - D3	10.95
JINXTER - DISK	16.95
CARRIER COMMAND - D4	11.95
TIME + MAGIK - D4	11.95
IMPOSSIBLE MISSION II - D2	7.50
FOOTBALL MANAGER II - D2	7.50
OCEANS 5 HITS - D2	7.95
BUBBLE BOBBLE - D2	6.95
ENLIGHTENMENT - DRUID II - D2	6.95
DELUXE SCRABBLE - DISK	13.95
GNOME RANGER - D2	7.95
S. STREET BASKETBALL - D2	7.50
EYE - D2	7.95
FIRE TRAP - D2	7.50
CALIFORNIA GAMES - D2	7.50
SEPTEMBER - D2	7.95
SLAINE - D2	7.50
RAMPARTS - D2	7.50
BRAVESTARR - D2	7.50
ROY OF THE ROVERS - D2	7.50
THROUGH THE TRAP DOOR - D2	7.50
BLOOD VALLEY - D2	7.50
DRILLER - D2	7.50
GUNSHIP - D2	7.95
THUNDER CATS - D2	6.95
PEGASUS BRIDGE - D3	10.95
SUPER HANG ON - D2	7.50
FLYING SHARK - D2	6.95
RYGAR - D2	6.95
720 - D2	7.50
CHARLIE CHAPLIN - D2	7.50
OUT RUN - D2	7.50
KNIGHTMARE - D2	7.50
GALACTIC GAMES - D2	7.50
RAMPAGE - D2	7.50
LUCAS FILMS 4 - D2	7.95
VICTORY ROAD - D2	6.95
RASTAN - D2	6.95
PSYCHO SOLDIER - D2	6.95
PHANTYS - D2	6.95
MATCH DAY II - D2	7.50
MAD BALLS - D2	6.95
GRYZOR - D2	6.95
FLASH POINT - D2	6.95
COMBAT SCHOOL - D2	6.95
SIDE ARMS - D2	7.50
SORCERORLORD - D3	10.95
SECOND CITY	5.95
G. LINEKER FOOTBALL - D2	7.50
ALT WORLD GAMES	7.50
SLAP FIGHT	6.95
DISCOLLOGY	13.99
10 X 3' DISKS	26.95
DISCOVERY PLUS	13.99
MULTIFACE II	45.95

ALSO AVAILABLE ON DISK FORMAT D1 = £10.95, D2 = £12.95, D3 = £14.95, D4 = £16.95, D5 = £19.95

FOR MAIL ORDER: PLEASE MAKE CHQ/P.O PAYABLE TO:
S.C.S (C + VG) 655, GREEN LANES LONDON N8 0QY
P + P INCLUDED IN U.K EUROPE ADD £1 PER ITEM. ELSEWHERE ADD £2 PER ITEM
ADD £5 PER MACHINE. SEND S.A.E FOR FREE LIST.
PLEASE SPECIFY MACHINE TYPE IN YOUR ORDER.

PERSONAL CALLERS PRODUCE THIS ADVERT AT EITHER SHOP FOR ABOVE DISCOUNTS TO: S.C.S UNIT 5, 221 TOTTENHAM COURT ROAD LONDON W1R 9AF. (NEAR GOODGE ST TUBE STATION)
OR AT S.C.S 655 GREEN LANES LONDON N8 0QY
(NEAR TURNPIKE LANE TUBE STATION) + ITEMS ONLY AVAILABLE FROM 655 GREEN LANES LONDON N8 0QY

ACCESS AND VISA CARD HOLDERS RING:
01 - 348 2907
01 - 340 8565
01 - 631 4627
CREDIT CARD ORDERS DESPATCHED SAME DAY SUBJECT TO AVAILABILITY.
* ALL NEW RELEASES ARE SUBJECT TO RELEASE DATE PLEASE RING FOR AVAILABILITY.

SOMETHING HORRIFYING AND IN

SCHWARZENEGGER

PREDAT

Nothing like it has ever been on Earth before.

It came for the thrill of the hunt.

It picked the wrong person to hunt. YOU!

ACTIVISION

©1987 Twentieth Century Fox Film Corp. All rights reserved. Trademarks owned by Twentieth Century Fox Film Corp. and used by Activision Inc. Under Authorisation.

Commodore 64/128 Cassette (£9.99) and Disk (£14.99). ZX Spectrum 48K/128K/+ (£9.99). Amstrad CPC Cassette (£9.99) and Disk (14.99). Atari ST (£14.99).

Mail Order: Activision (UK) Ltd. Units 3 & 4 Lloyds Close Finedon Road Industrial Estate Wellingborough Northampton NN8 4SR Tel: (0933) 76768

American Express, Visa and Access Cards welcome

American Express,

Visa

Access

INEPLICABLE IS GOING TO HAPPEN.....

UNIVERSAL MILITARY SUCCESS?

Rainbird's *Universal Military Simulator* is designed to simulate a conflict between two forces on a user defineable terrain that can be viewed in three dimensions from any one of eight directions. The programme takes full advantage of the ST's GEM display and heralds a new era in 16-bit computer wargaming.

UMS is one of a small number of programs released during 1987 that show the true promise of 16-bit computing – the use of increased processor power to alter radically the games we play and the challenge they present. *Lords of Midnight*, from Beyond, introduced Landscaping and, by offering a window onto the world of Midnight, tempted many players who might otherwise have been put off by its 'strategy' associations. In a similar fashion, *UMS* puts more detail, more features, and more scope into the wargamer's hands than ever before, and does so with a style that could well open up the market to those previously uninterested.

There are five pre-set scenarios (with further scenarios to be made available in future). These range from Arbela in 331BC to Gettysburg (1863). Whether you play one of these or one of your own the program first enters the **Run Simulation** section, which in turn presents an **Issue Commands** phase and the **Movement/Battle Phase**. The computer can play one, both or none of the forces involved and can also be forced by the player to make tactical decisions.

Viewing the battle field of Gettysburg from one of the eight possible angles.

Once the desired strategy has been decided, a three-dimensional grid-map of the terrain is displayed, showing hills, ridges, depressions and other features. The map can be viewed from various distances and from various angles, but always from slightly above. Forces are shown on the map as markers pointing to a corner of a grid square, each marker indicating the type or commander of the unit.

Up to eight orders may be issued to any unit at the start of a simulation phase and these are processed by the computer with a pause between each of the eight stages, at which point you can check what's going on. Many considerations are taken into account by the program including morale, terrain, and efficiency. Once a simulation phase has been entered you cannot change your mind about the orders given, which is perhaps a

Running a simulation

When the **Issue Commands** phase is operative, the computer can be made to zoom in to show the detail of the unit's immediate surroundings. Clicking on one of the compass points in the left hand box will result in the unit being ordered in that direction for the first of its eight time segments. Options to have the unit attacking, defending or on reserve are also included in this part of the simulation.

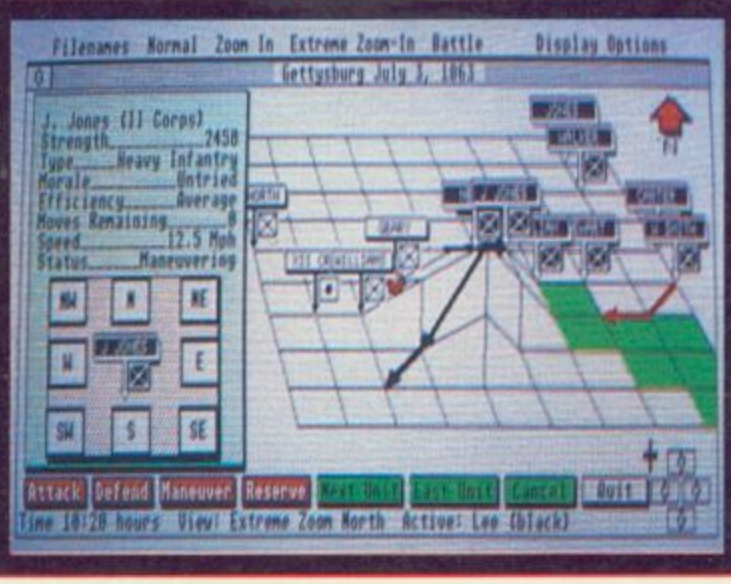
The time segments are user definable – unless changed, the computer will run 10 minute segments. If, at the end of a time segment, two opposing forces are close enough to fight, the computer will display a table showing the result of the combat before moving onto the next phase. After every eight time segments, the computer will slightly re-arrange the units to conform to the 'No stacking rule' (which avoids piling units up on the same spot) and will then display a table showing the size of the remaining forces and casualty levels.

Zoom out...

During the battle, movement arrows can be displayed to show the player the intended route of his forces. These arrows, as well as battle indicators, landmarks or indeed the opposition's unit markers can be toggled on or off at will. Notice how it is a little difficult to see each unit's marker (and position) from this distance.

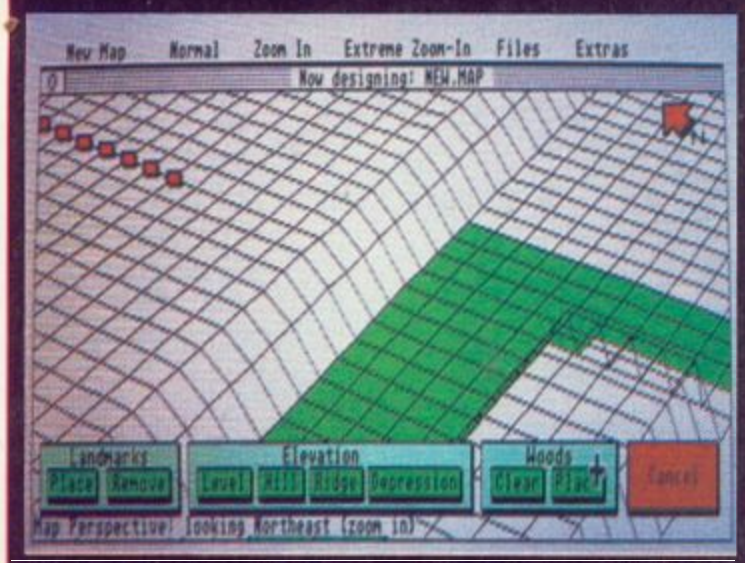
...and zoom in.

To aid the player when it comes to issuing orders, an Automatic zoom feature is incorporated which greatly increases the level of magnification and shows the unit and the surrounding area in much more detail. This magnified window can be scrolled in any of four directions using the cursors in the bottom right corner and can also be toggled on or off.



Creating a scenario

Have you ever wondered how Napoleon would have fared against Alexander the Great on the battle field at Gettysburg? Well even if you haven't, *UMS* gives the player the chance to create battles between forces of almost any size from absolutely any time.period on a terrain designed entirely by the player. That level of interaction really does give a wargamer scope to exercise his imagination and experiment with an infinte number of 'what if's'. Creating a scenario merely requires the player to design the terrain and the forces – and then put them together. The player is limited only by his own imagination when it comes to creating scenarios, and the manual shows examples of terrains representing both interior locations (e.g. castles) as well as landscapes.



Landscape gardening

Using the Automatic zoom, the player can close in on any area he wishes to change. Once a feature has been added to the map it can be manipulated , added to or removed as often as the player wishes. You can even alter the terrain of the pre-designed battlefields if you so desire.Terrains can be saved to disk so you could have several forces from several time periods fighting on the same battlefield (though not all at once).

Deploying your forces

Each unit from each force is dealt with in turn untill all the units have been placed and then the opposing force is dealt with. All that then remains is to decide the start and finish times, the length of the time segments and who'll control what.

weak point but mirrors to a certain extent the irrevocable nature of commands given in real warfare. Battles can be saved to disk at any stage and can be resumed whenever the player has the inclination to continue.

UMS is not a simple program to master, but it repays careful study. The instructions are slightly too concise, simply because there's so much to cover, but anyone with an interest in setting up fantasy, theoretical, or actual conflict simulations will find it invaluable. It's also worth mentioning that Rainbird will consider marketing scenarios created by users, in much the same way as Incentive market graphic adventures created by their GAC utility.

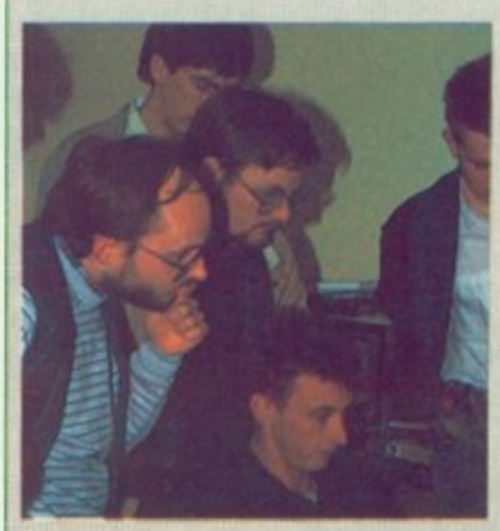
Universal Military Simulator
Rainbird Software

Atari ST	£24.95	IMMINENT
IBM PC	£24.95	IMMINENT
Macintosh	£34.95	JAN 88
Amiga	£24.95	JAN 88

Additional scenario disks planned, but no release date as yet.

Zooming in – making tactical decisions can be helped by viewing the forces from close range and from many angles.

Panel of Experts



No prizes for guessing what these members of the Bath Wargaming Group are staring at....Alexander vs Darius in 331BC.

We called in the local experts to pass judgement on *UMS*. Chris Brann, from the Bath Wargaming Group, together with Garrett Moorhouse, Mark Thursfield, Nick Gray, Mark O'Donnell, and John Csonka, put *UMS* through its paces and delivered their considered verdicts.

Display

Although initially impressive, members found the displays of the larger scenarios (e.g. Waterloo) confusing, despite the numerous Zoom options. This, combined with the difficulty of including rivers in the terrain, led to some doubt as to the program's suitability for setting up modern scenarios, where conflicts cover very large territories. 'The program's going to be great for anything pre-20th century because the battlefield's likely to be smaller. But take something like Battle of the Bulge with a huge playing area and you could find things getting very complex.'

Features

Some sort of randomising factor should be included, affecting the response time of certain units, for example, so that the 'nail-biting' aspect of wargaming could be emphasised. A further option suggested was the ability to designate parts of your own army as computer controlled, thereby simulating the action of independent commanders.

In addition the position of the commander-in-chief could be shown, with perhaps a viewpoint of the battlefield from his/her location. This would introduce some of the problems arising from fields of view, where the action is hidden from those who are directing it.

Everyone was very enthusiastic about UMS, despite the suggestions made above. 'I can think of some tremendous scenarios you could program on it', enthused Garrett Moorhouse, and members were particularly excited by the ability to 'blank out' the opposing army, making it invisible to the player. 'That feature makes the program ideal for guerilla warfare simulations, with irregular troops and limited intelligence on their location,' Chris pointed out.

"The Undisputed Champ

CBM 64/128 £9.99t £14.99d
AMSTRAD £9.99t £14.99d MSX £9.99d
IBM £24.99d AMIGA £24.99d
SPECTRUM £8.99t +3 £12.99d

"CALIFORNIA GAMES has to be the best release this year". Commodore Computing International

"If I had to choose all but one of my Epyx Games disks, I would choose to keep this one."
Your Commodore

"CALIFORNIA GAMES deserves all the Accolades and Trophies it gets this year"
Computer and Video Games

"Undoubtedly the most polished of the games series." The Game Machine

CBM 64/128
£9.99t £11.99d
SPECTRUM £8.99t
IBM £24.99d
AMIGA £24.99d
AMSTRAD £9.99t £14.99d

You'll shoot hoops in dingy alleys, playgrounds and parking lots. There's hot shooters and slow dribblers, team players and show offs. Pass on the run, pop 'em in from the corners, take a hookshot, a tip in.

WE ARE THE

U.S. GOLD
American Software

U.S. Gold Ltd., Units 2/3 Holford Way, H

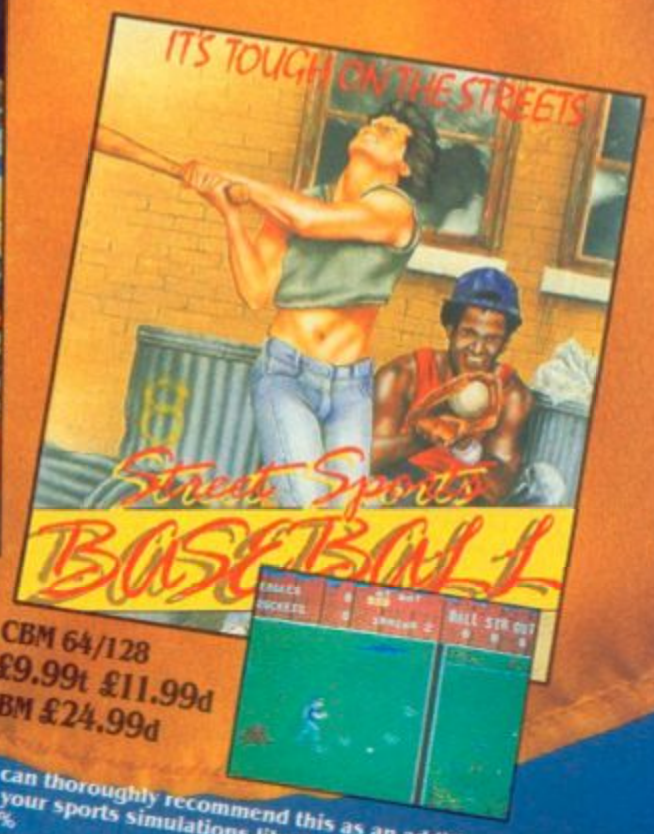
mon of U.S.Games Houses"

M 64/128
.99t £14.99d
ARI ST £24.99d
M £24.99d

questionably the most detailed historic World
r II submarine simulation ever created. Test
e one for yourself.

CBM 64/128
£9.99t £14.99d

"At this price it should be in everybody's library or you are really missing out."
Commodore Computing International



CBM 64/128
£9.99t £11.99d
IBM £24.99d

"I can thoroughly recommend this as an addition to your sports simulations library."
Zzap 64

"STREET SPORTS BASEBALL" is simply one of the most terrific "Game" games you will ever play. Awesome.
Commodore Computing International

CHAMPIONS!

EPYX®

ingham B6 7AX. Tel: 021 356 3388

The Best games at the Best Price . . .

FRUIT MACHINE SIMULATOR
A real simulator of the latest feature packed fruit machines. A top ten hit. C64 and Spectrum.

PRO SNOOKER
Superbly realistic simulation. Another best seller. Amstrad C.P.C., Spectrum, M.S.X.

ARMOURDILLO
High speed scrolling strategy game. Super playability. C64 only.

BRAINACHE
Unique best selling exploration game. High in playability and skill. Spectrum and Amstrad C.P.C.

B.M.X. SIMULATOR
Probably the best selling game this year. C64, Spectrum, Amstrad C.P.C., Atari 800/130XE, M.S.X. C16 and +4

A.T.V. SIMULATOR
Brilliant 2 player racing game with realistic perspective. Best Seller. Spectrum only.

MISSION JUPITER
A super high speed shoot 'em up by Derek Brewster. Spectrum and Amstrad C.P.C.

TRANSMUTER
Best selling quality graphics shoot 'em up. Highly addictive. Spectrum, Amstrad 464, Atari 800/130XE.

DIZZY
Best selling cartoon game from the Oliver twins. Spectrum and Amstrad C.P.C.

TERRA COGNITA
One of the original Code Masters classics. A superior scrolling shoot 'em up. Spectrum, C64, Amstrad C.P.C., C16 and +4.

COSMONUT
Five amazing games in one. Highly playable and brilliant value. C64.

SUPER G MAN
An intensely playable, horizontally scrolling, fast action arcade game. Spectrum, C64, C16 and +4.

PRO SKI SIMULATOR
The thrills without the spills. A top ten hit. Spectrum and Amstrad C.P.C.

STAR RUNNER
The all time race against time. Graphically brilliant. Spectrum only.

GHOST HUNTERS
Best selling second epic game from the Oliver twins. Spectrum, Amstrad C.P.C.

RED MAX
The overhead scrolling game that set all standards. C64 and Atari 800/130XE.

GRAND PRIX SIMULATOR
Number One Mega best seller. Endorsed by Johnny Dumfries. Amstrad C.P.C., Spectrum and C64.

THUNDERBOLT
Amazing high speed shoot 'em up. Super-smooth super-fast graphics. C64 only.

VAMPIRE
Code Masters classic platform game. Spectrum, C64, Amstrad C.P.C., M.S.X.

WHITE HEAT
A classic arcade style all action game. Incredible graphics speed. Spectrum only.

SUPER ROBIN HOOD
Top Ten best selling platform game. Feature Packed. Amstrad C.P.C., C64, Spectrum.

LAZER FORCE
Yet another compulsively addictive game by the author of THUNDERBOLT. C64 only.

NECRIS DOME
Brilliant graphics adventure. Best budget adventure ever. Spectrum, C64, Amstrad C.P.C.

CREATIONS
David and Richard Darling's legendary game designer. C64 only.

COMING SOON – CODE MASTERS-PLUS, A GENUINE ADVANCE IN GAMES TECHNOLOGY

Only **£1.99** each! (P&P free)

Buy five, get one FREE!

ORDER FORM Post to **Codemasters Offer, ACE, Somerton, Somerset TA11 7PY.**

☐ I would like to buy the following ____ Codemasters games at £1.99 each. Total £_____

☐ I would like to buy the following SIX Codemasters games for £9.95.

1. _____
2. _____
3. _____
4. _____
5. _____
6. (free) _____

Name _____

Address _____

My computer is ☐Spectrum ☐C64/128 ☐Amstrad

Make cheques payable to ***Future Publishing Ltd.*** *Offer is UK only, closes Jan 31st, 1988.*

There's a real Christmas hamper this month, full of succulent tips, pokes and maps on all those games you want to beat. We bring you *indestructibility* on Amiga Goldrunner, *infinite naughtyness* on Jack the Nipper 2, *infinite lives* on Re-Bounder, and much, much more.

TRICKS 'N' TACTICS

F-15 STRIKE EAGLE

C64 version

Going crazy with frustration at always running low on fuel before you've taken out more than two enemy installations? Frustrated that dropping external fuel tanks, or otherwise lightening the aircraft by progressively using up the ordnance mounted on external pods, appears to make no difference to the fuel burn? Well, now a solution to having to constantly return to base for fuel is at hand!

Engine power is rated by turbine r.p.m's on a percentage basis. This corresponds to the keyboard as follows;

1	2	3	4	5	6	7	8	0	
60%	65%	70%	80%	85%	90%	95%	100%	55%	

Afterburners can be engaged by pressing the 'A' on the keyboard; this is quoted as increasing the fuel consumption at a rate of "about 60% higher than at the 100% rpm. level".

At the bottom centre of the screen cockpit layout is the fuel status display. This reads as pounds of fuel remaining and is constantly reeling downwards. Careful observation will reveal the direct relationship between the percentage of thrust the pilot has selected and the amount the fuel decrements – this relationship is as follows;

Keyboard	1	2	3	4	5	6	7	8	9	0
lbs fuel	4	5	6	7	8	9	10	11	12	32

So, if the pilot is running at 75% rpm's for example, the fuel status display will be going down in leaps of 7 lbs at a time. But if 55% rpm thrust is selected and then the afterburners engaged the aircraft's speed increases but the fuel burn rate remains at 3 pounds!

The pilot now has the range and endurance to do a great deal more damage to the enemy. He can fly at Mach Plus speeds on route to targets or fight at an optimum speed for threat response.

This has the additional advantage of enabling the pilot to more effectively decoy heatseeking missiles. If the afterburners are engaged and a heatseeker is closing on the aircraft the tactic to follow is; wait until the missile is within 5 miles, disengage afterburners and simultaneously release a decoy flare. Take immediate evasive action, ie, sharp turn, and the F-15 will always escape; the heatseeking S.A.M. will lose the extremely intense heat signature of the exhaust on afterburners when the much cooler signature of 55% thrust is selected and follow the flare instead.

And, with this tip, you can usually always afford to fly with afterburners engaged!

WARREN CANN,
East Finchley.

SUPER SPRINT

Make sure you always qualify on the Spectrum with this poke

```
1 REM Super Sprint poke
2 REM (c) J Humes '87
3 REM  ACE Dec '87
5 CLEAR 32767
10 PRINT AT 10;3; "START
'SUPER PRINT TAPE"
15 LOAD ""CODE 65088
20 POKE 65108, 194
25 POKE 65092,37
30 FOR F=65400 TO 65413
40 READ a: POKE F;a: Next F
50 DATA 62,201,50,206, 192,195
60 DATA 0, 154,205,64,254, 195
70 DATA 44,255
100 RANDOMIZE USR 65408
```

JERMAINE HUMES, Enfield

NINTENDO

THE FIRST CHEAT?

This tip for Super Mario Brothers will prove invaluable for anyone having problems in the Nintendo classic

After you die and go back to the title screen, instead of pressing 'start' press button A and then at the same time as holding button A down, press start. You will now be returned to the previous world you were on, so skipping all the levels before it. For example, if you are on level 4-2 and you die, do the above procedure and you will arrive at 4-1.

RICHARD ELTON, Stoke-on Trent

MYSTERY OF THE NILE

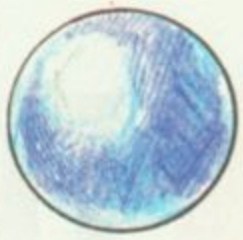
Mysterious passwords on the C64

Level 1 HD576172V
Level 2 HE576171V
Level 3 HF576170V

MITCH POMFRET, Stockport.

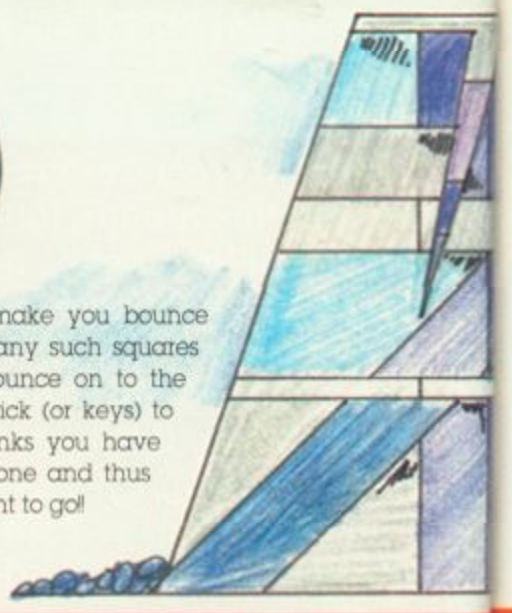
PLEXAR

Spectrum



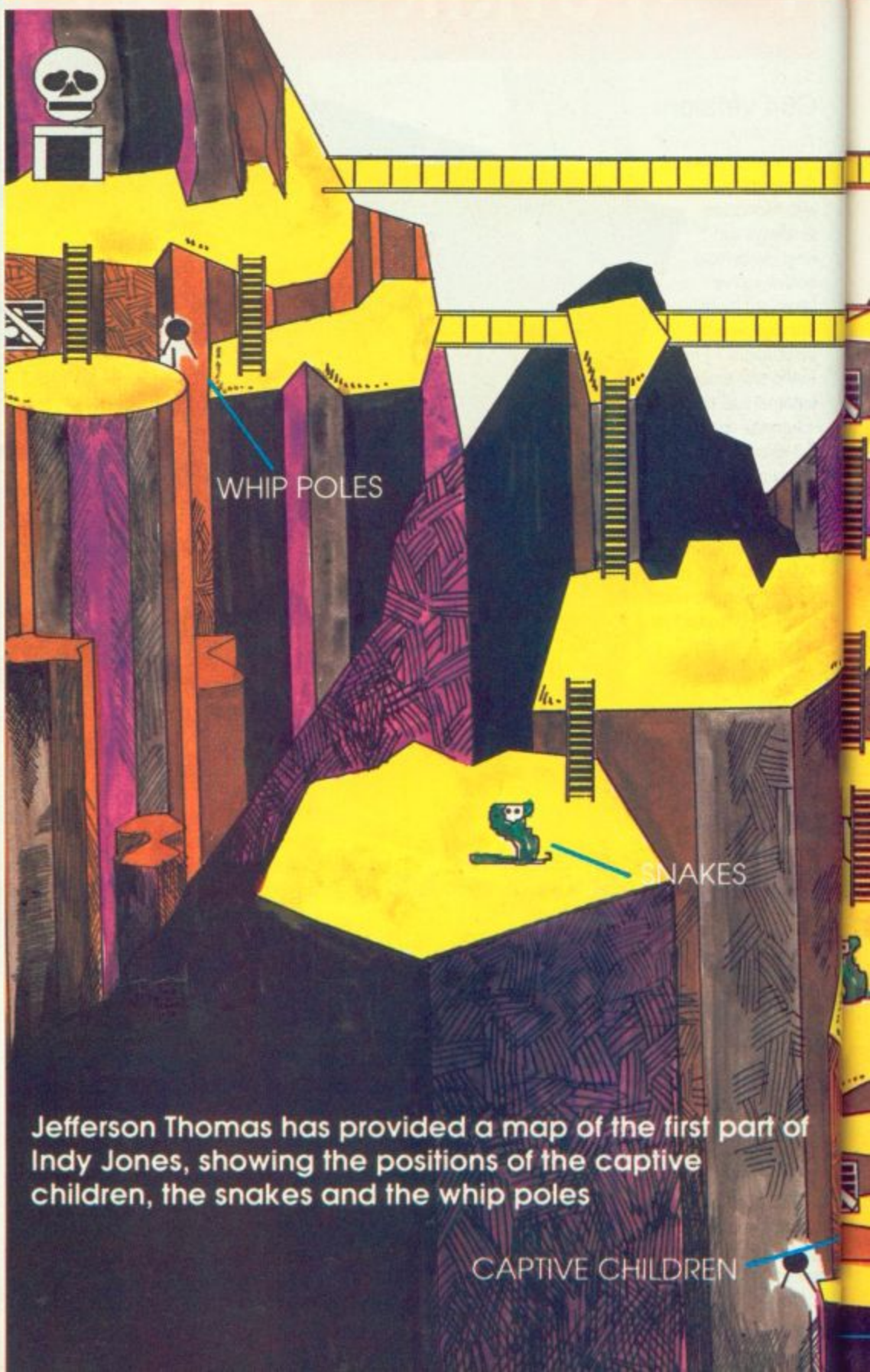
Certain squares (black and white diagonal lines) make you bounce backwards one square, and this is difficult when many such squares are next to each other. The solution is simple – bounce on to the square and before you bounce back move the joystick (or keys) to move you in the opposite direction. The square thinks you have landed on it from the opposite direction to the real one and thus bounces you the other way – which is where you want to go!

BEN SINCLAIR, Farnham



INDIANA JONES – THE MAP

PART 1



Jefferson Thomas has provided a map of the first part of Indy Jones, showing the positions of the captive children, the snakes and the whip poles

GOLDRUNNER

Amiga indestructibility

Press 1 to start a 1 player game, then fly forwards straight into the first building. When you crash, hold down the F5 key until you see the status screen. Then – with a little bit of luck – you can pass through anything unhurt.

MAX HARROWER,
St. Austell

MISSION GENOCIDE

Choose your level on the Amstrad version

To activate the cheat mode type QED on the title screen then press keys 1-9; This gives access to these levels.

RICHARD JENNINGS,
Abeaeron.

INFINITE NAUGHTYNESS!

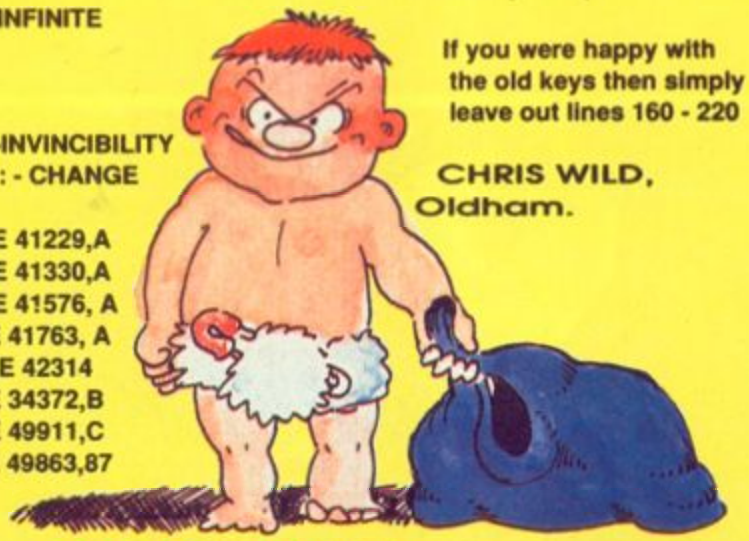
Infinite Naughtyness on the Spectrum Jack the Nipper 2 Plus the chance to change those 'orrid control keys.

```
10 REM JACK THE NIPPER 2
20 REM @ 1987 CHRIS WILD
25 REM ACE Dec '87
30 CLEAR 24575
40 LOAD "" SCREENS
50 LOAD "" CODE
60 POKE 43251, 0: REM (INFINITE
LIVES)
70 LET A=50 LET B=247
80 LET C=71
90 REM LINES 110 - 150:-INVINCIBILITY
100 REM LINES 160 - 220: - CHANGE
KEYS
110 POKE 41222, A:POKE 41229,A
120 POKE 41297, A:POKE 41330,A
130 POKE 41444,A: POKE 41576, A
140 POKE 41696,A:POKE 41763, A
150 POKE 41797, A; POKE 42314
160 POKE39820, B;POKE 34372,B
170 POKE 49884,C;POKE 49911,C
180 POKE 49897,C,POKE 49863,87
190 POKE 49891, 251
200 POKE 49905,253
210 POKE 49870,223
220 POKE 49857, 127
230 RANDOMIZE USR 34240
```

This results in the new control keys being:
Q-up
A-Down
O-left
P-right
M-fire
1-Quit
3-Music (on/off)

If you were happy with the old keys then simply leave out lines 160 - 220

CHRIS WILD, Oldham.



RENEGADE

Infinite lives on the Spectrum

```
1 REM ACE Dec '87
4 CLEAR 49151
5 LET T=0: LET W=0
10 FOR F=47872 TO 48000
15 READ A: POKE F,A
20 LET T =T+A*W: LET W=W+1
30 NEXT F
35 IF T<> 922903 THEN PRINT "ERROR IN
DATA": STOP
40 PRINT AT 10,3; "START RENEGADE
TAPE"
45 LOAD "" CODE
50 RANDOMIZE USR 47872
100 DATA 221,33,111,187,6,6,197
110 DATA 221,110,0,221,102,1
120 DATA 221,78,2,6,0,17,0,125
130 DATA 237,176,2356,54,201,30
140 DATA 150,205,0,125,221,35
150 DATA 221,35,221,35,193,16
160 DATA 222,33,103,238,17,0
170 DATA 252,1,0,4,237,176,175
180 DATA 50,115,255,33,80,187
190 DATA 17,23,255,1,3,0,237
200 DATA 176,33,83,187,17,0
210 DATA 93,1,50,0,237,176
220 DATA 195,244,254,205,0
230 DATA 93,62,195,50,76,255
240 DATA 33,12,93,34,77,255
250 DATA 201,253,33,58,92,62
260 DATA 36,50,87,160,49,79
270 DATA 93,251,195,203,92
280 DATA 197,228,16,213,228,24
290 DATA 19,229,12,31,229,14
300 DATA 45,229,25,81,229,11
```

MARC DONNELLY, Goole.

RE-BOUNDER

Infinite lives on the C64

Type it in the poke, save it, then load the game.

```
10 REM RE-BOUNDER
15 REM ACE Dec '87
20 PRINT CHR $(147)
30 FOR FR= 14080 TO
14164: READ A: POKE F, A:NEXT F
40 SYS 14080
50 DATA 32,44,
247,32,108,245,169,19,141
60 DATA 134,9,169,55,141,135,9, 76,16
70 DATA 8,169,76,141,45,1,169,37,141
80 DATA 46,1,169,76,141,47,1,76,0,1,169
90 DATA 49,32,63,1,162,0,189,58,55,157
100 DATA 0,4,232,224,32,208,245,76,0
110 DATA 4,169,51,32,63,1,169,52,32
120 DATA
63,1,169,234,141,36,145,141,37
130 DATA
145,141,38,145,76,16,128,0,0,0
```

MR R GADD, Cheltenham

GRAND PRIX SIMULATOR

Cheat for the Amstrad

On the Title Screen, Type in TRACK,then the letter of the track you wish to start on.

JASON YATES, Birmingham

LAZER FORCE

Choosing levels on the C64

When *Lazer Force* has loaded, switch to the demonstration mode. When the demo is finished, hold down the Commodore key, and the keys 1 and 2 simultaneously. You will now be put straight on to a high level with 6 lives. This will not work, however, until the program demonstrates a level higher than level 3.

PAUL LAMARQUE, Birmingham.

STAR PAWS

Unlimited food on the C64

```
3 For I = 10497 to 10526 :READ A:
POKE, I,A :C=C+A Next I
4 For I = 512 to 519 :Read A :Poke I,A
:C=C+A NEXT I:IF C=3988 THEN SYS
10505
5 PRINT "ERROR IN DATA!!"
6 DATA169,2,141 5, 84,
76,1,82,198, 157,169,0,162,1,168,
32,186,255, 32, 189, 255, 32.
7 DATA
213,255,78,215,8,76,32,8,169,96,1
41,186,23,76,0,16.
```

R.MANOJ, W Finchley.

CLEAN UP SERVICE...

C64 – infinite lives

Enter and RUN this listing for infinite lives for both players.

```
1 FOR B=558 TO 584: READ A: POKE B,A:
NEXT: POKE 157,128: SYS 558
2 DATA 169, 59,141,40,3,169,2,141,
41,3,32,86,245
3 DATA 169,31,141, 207,1,96,169, 185, 141,
250, 141,76,68,68
```

THE MASTER HACKER, Clywyd

GAUNTLET

ST – infinite health

Load ST basic, then type in and save the listing. Insert your Gauntlet disk A with write-protect off and type RUN. Follow the on-screen prompts from then on.

RICHARD MONTEIRO, Yeovil

```
10    data 3f,3c,00,01,2f,3c,ff,ff
20    data ff,ff,2f,3c,ff,ff,ff,ff
30    data 3f,3c,00,05,4e,4e,de,fc
40    data 00,0c,48,7a,00,7a,3f,3c
50    data 00,09,4e,41,5c,8f,3f,3c
60    data 00,01,4e,41,54,8f,3f,3c
70    data 00,01,3f,3c,00,00,3f,3c
80    data 00,02,3f,3c,00,01,3f,3c
90    data 00,00,42,a7,2f,3c,00,02
100   data 04,00,3f,3c,00,08,4e,4e
110   data de,fc,00,14,23,fc,00,00
120   data 0d,70,00,02,05,42,3f,3c
130   data 00,01,3f,3c,00,00,3f,3c
140   data 00,02,3f,3c,00,01,3f,3c
150   data 00,00,42,a7,2f,3c,00,02
160   data 04,00,3f,3c,00,09,4e,4e
170   data de,fc,00,14,48,7a,00,93
180   data 3f,3c,00,09,4e,41,5c,8f
190   data 4e,f9,00,02,00,90,50,6c
200   data 65,61,73,65,20,69,6e,73
210   data 65,72,74,20,47,61,75,6e
220   data 74,6c,65,74,20,28,64,69
230   data 73,6b,20,41,29,20,69,6e
240   data 74,6f,20,64,72,69,76,65
250   data 20,41,2e,0d,0b,4d,61,6b
260   data 65,20,73,75,72,65,20,74
270   data 68,61,74,20,74,68,65,20
280   data 77,72,69,74,65,20,70,72
290   data 6f,74,65,63,74,20,74,61
300   data 62,20,69,73,20,6f,66,66
310   data 2e,0d,0b,0d,50,72,65,73
320   data 73,20,61,6e,79,20,6b,65
330   data 79,20,74,6f,20,63,6f,6e
340   data 74,69,6e,75,65,2e,2e,2e
350   data 0d,0b,0d,0b,0d,0b,07,00
360   data 0d,0b,50,72,65,73,73,20
370   data 74,68,65,20,72,65,73,65
380   data 74,20,6b,65,79,20,74,6f
390   data 20,63,6f,6e,74,69,6e,75
400   data 65,2e,2e,2e,0d,0b,0d,0b
410   data 52,70,4d,00
420   def seg=-1:for a=1 to 324
430   read a$:b=val("&H"+a$)
440   poke &H20000+a,b:q=q+b:next
450   if q<>23955 then 510
460   def seg=0:loc#=&H20056
470   input"Health (0 to 999999)";h
480   poke loc#,h
500   c=&H20000:call c
510   print"Error in DATA":end
```

QUEDEX

C64

Enter and run this listing for infinite units (when collecting bonus, press fire to access the bonus screen)

```
1 FOR B=528 TO 554: READ A: POKE B,A:
NEXT: POKE 157,128: SYS 528
2 DATA 169,29,141,40, 3,169,2,141,41,
3,32,86,245
3 169, 3,141, 206,1,96,169,181, 141,
96,46,76,235,2
```

THE MASTER HACKER, Clwyd.

ANARCHY

C64

Knock out the sprite to sprite collision detection with this little routine. Enter and RUN the listing before LOADING the game.

```
1 FOR B=379 TO 390: READ A: POKE B,A:
NEXT: POKE 157,128: SYS 379
2 DATA 32,86, 245,169,1
,141,29, 4, 96, 206,
202, 32, 76,162,124
```

THE MASTER HACKER, Clwyd.

HOT TIPS... HOT PRIZES!

Every month the amazingly generous people who run the Tricks 'n' Tactics section here at ACE **give away** software – not to any Tom, Dick or Harry, but to deserving causes. That means those people who have done a service to their fellow games players, by providing a **tip**, a **map** or a **poke** that has helped others to ever greater achievements.

This month Jefferson Thomas picks up **Bobsleigh, Deflektor, Driller, Dark Sceptre, Phantom Club and Nebulus** for his Spectrum. Why? Because his **Indiana Jones** map is the tip of the month, that's why. But there's more to come; Warren Cann receives **Nebulus** for his C64, Max Harrower gets **Leviathan** for his Amiga, Chris Shaw wins **Driller**,. R. Gadd gets a C64 **Nebulus** and Mark Donnelly gets **Driller** for his Spectrum.

So what are you waiting for? With prizes like these you'd have to be **STARK STARING BONKERS** not to share your knowledge with the rest of us. The address to send your masterworks to is

TRICKS 'N' TACTICS
4, QUEEN STREET
BATH
BA1 1EJ

and don't forget to state clearly your name, address and computer.

Wanted

Don't know which games to tip, map or pole? We reckon that the following games are going to cause quite a few problems: **Stealth Fighter, Skate or Die, Nebulus, Bobsleigh, Driller, Buggy Boy.**

Arcades

Coin-op tip winner this month is Will Dowling, who gets **Driller** for his Spectrum in return for his copious **Spy Hunter tips**. Where are the rest of you? Don't be shy – we love to hear from you. And what about some tips on **Xenophobe**?

ATARI The leading North West Specialist ATARI Dealer

LADBROKE COMPUTING INTERNATIONAL

DEPT ACE
33 Ormskirk Road
Preston, Lancs. PR1 2QP
Tel: (0772) 21474 (1 line)
(0772) 203166 (5 lines)
Bul/Board (0772) 21474
6pm to 9am

ATARI

This Company has given years of full support to ATARI users Countrywide from their retail shop premises at Ormskirk Road, Preston. Now from their NEW Mail Order Depot they can offer the same Excellent service to all Mail Order Customers.
All Software and Hardware is fully tested prior to selling. This ensures Customers receive working items so that returned goods, and all the attendant frustration are a thing of the past. All Hardware is supported by our own 'ON SITE' engineers, therefore quick turn round on all repairs is Guaranteed.
All prices quoted are fully VAT inc. and there are no 'hidden extras', what you see is what you get.
Prices include delivery. Phone for latest Prices/Releases.

520STM Packages.....PHONE

1040STF+Mouse
+Softwr.....£480.00
1040STF+Mouse
+Hi-Res Mon
+Softwr.....£580.00
1040STF+Mouse
+Colour Mon
+Softwr.....£780.00

1Meg Upgrades are available for the 520STM. These are our own design and are very simple to fit.
Using the same board, all ST's can be Upgraded to 2mg or 4mg. So no need to sell your 520 just Upgrade to a Mega ST using our board.

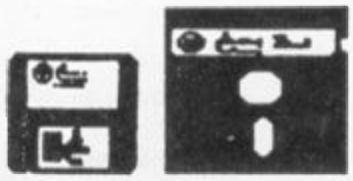
1Meg Upgrade (STFM).....£70.00
1Meg Upgrade (All ST's)+Board £150.00
Upgrade Boards.....£120.00
2.5Meg Upgrade +Board.....PHONE
4Meg Upgrade +Board.....PHONE

If any of the above Upgrades are purchased with Hardware then deduct £5 from total.

All Hard Disks come with Utilities to cure the 40 Folder problem + Backup Utilities, Fast Read Write etc.

PRINTERS

Dot Matrix
Star NL10 .....£240.00
NL10 Sheetfeeder £55.00
National Panasonic.....PHONE
MP165 .....PHONE
MP135 .....PHONE
LX86 Tractor Feed £19.00
LX86 Sheetfeeder £55.00
LQ800 24pin D/M £525.00
All Others.....PHONE



	3½ D/S D/D	5¼ D/S D/D 46TPI
Per Disk	£1.99	£0.80
10 Disks	£16.00	£6.50
10 Disks+Plastic lib case	£17.50	£7.50
100 Disks +Cases	£150.00	£60.00
500 Disks +Cases	£650.00	£280.00

All Disks are covered by an unconditional lifetime guarantee.

We also stock a full range of quality P/D ST Software at £3.99 per Disk
Send SAE for catalogue.

Our ATARI trained engineers will repair all Hardware in minimum time at competitive rates. Please ring for a quotation. All repairs carry a 90 day warranty.

NEWLY IMPORTED

Imager. Easily fixed to your printer it will digitise anything placed in the printer and save to Disk to be used with Dega, Elite etc. RRP £99.99.

All Printers, Disk Drives etc supplied with cables etc. NO HIDDEN EXTRAS

Mega ST's .....PHONE
Lazer Printers .....PHONE
PC Clones .....PHONE

DUST COVERS

Computers.....£3.99
Monitors.....£4.99
Disk Drives £2.99
Printers.....£7.99

IF IT'S AVAILABLE we have it!
Send SAE for full catalogue.

All Dedicated books and mags in stock

520STFM+Mouse
+Softwr.....£285.00
520STFM+Mouse
+Softwr
+1Meg Upgrade.....£350.00
520STFM Mega Pack
520STFM+Mouse
+Softwr
+1Meg Upgrade
+1Meg 2nd Drive.....£485.00
Equal to 1040STF+½Meg Drive +Modulator

For Med Res Col Mon add.....£299.00
For High Res Mono Mon add....£129.00

All Hardware is covered for 12 months by our service dept. and is tested prior to delivery to assure satisfaction.

We have a complete range of Software in stock and fully tested.

We also stock a full range of ATARI 8Bit Hardware and Software including the new XE range. Please ring for prices

PERIPHERALS

Triangle 1mg D/Drive £139.00
Triangle 2x1mg D/Drive.....£229.00
Pro Draw Graphics Tab'.....£299.00
Cumana 1Meg D/Drive £139.00
All Drives come complete with Software

HARD DRIVES

Atari 20mg.....£560.00
Triangle 20mg Hard Disk.....£575.00
Supra 20mg.....£550.00
30Meg (Cumana).....£699.00
40Meg (Triangle).....£799.00

Any Software problems? Queries? give us a ring we usually have the answer

TO ORDER Simply send, or phone your order, stating Full Name, Address, Visa or Access Nos, Cheque or Money order. Make payable to Ladbroke Computing International, 33, Ormskirk Road, Preston, Lancs. PR1 2QP.

FOR MORE INFO CALL ON THE ABOVE NUMBERS OR SEND SAE AND STATE FULL REQUIREMENTS

IN THE ARCADES

A bumper set of tips on Spy Hunter wins WILL DOWNING of Daventry this month's arcade tip prize; if you think you can come up with anything as good, get it down on paper and send it in NOW!

SPY HUNTER

The road's features are random, without sequences that can be memorised. The surrounding countryside, however, changes colour in regular patterns. These territories have different features, their own weapons van and are of roughly equal length. Toward the end, the road forks into a dual carriageway.

Territories:

1 Bright green – sharp curves just before boathouse. short dual carriageway.
2 Yellow – sharp curve between bridges, short dual carriageway
3 Grey – mostly straight and wide, long dual carriageway.
4 Brown – sharp curves before and after bridge, short dual carriageway.
5 Dull green – straight and wide, long dual carriageway.

Territory	I	II	III
1	A/C	5	3
2	A	3	4
3	B	1	4
4	C	1	1
5	A	2	3

I - Weapon
II - Take left carriageway,
III - Take right carriageway

Weapons
A - Oil Slick
B - Smoke Screen

Tips

1.If, at the end of the timer countdown, you have reached a third territory without losing any cars or destroying any civilian vehicles, you will probably earn two extra lives.

2. While driving down a dual carriageway, press the WEAPONS VAN (if still lit) and let it catch up and overtake. When the road expands, move over to the left verge (the van will follow) and accelerate inside. Your scoring continues while travelling in the van, so this means an easy 500-700 extra points (not to mention your weapons topped up).

3. Use oil-slick sparingly; one quick squirt is enough to send an enemy agent sliding out of control.

4. Only shoot missiles when the helicopter is about to drop a bomb. Shot enemy agents come to a dead stop, so be ready to swerve as you shoot.

5. Switchblades will not sprout their deadly spikes on curves. Sometimes, the enemy agents unwittingly destroy each other. Anything explodes on contact with the Switchblade spikes, and it loses the spikes on the 'used' side.

6. The Mad Bomber destroys whatever he hits and, on the water

7. Barrel Dumpers sail straight into each other's barrels.

8. Weapons Vans are impervious to all enemy weapons - but vulnerable to yours, so don't shoot or slick them.

9. On the water, your steering is as loose as on icy roads. Sail slowly, because Barrel Dumpers drop barrels when directly in your path and Doctor Torpedo can only fire if some distance behind you. It also shoots backwards so, if you have no fiery oil-slick, slow down and let it overtake, then shoot it quickly. No more than two enemy boats will menace you at the same time, except when you first join the river (as many as four may come at you). If you miss the boathouse back onto the road, beware of an island in the middle of the river; pass it carefully on the right or skip over it at high speed.

10. If you go from an icy road to the water, stay there and bypass the boathouse. Shortly after the island, the land undergoes an instant thaw back to green - with safe roads.

11. Watch out for civilian vehicles in front of the van; it will swerve to avoid them, which may cause you to crash.

12. Bugs – when your car rolls back out of the van (on the right-hand verge), you can drive straight forward - through trees, across water and over broken bridges - without any trouble, and rejoin the road at any time. This is best used at high speed, and is good for locating a clear stretch of road (but don't forget to slow back down again!) No points are scored for travelling in this way and The Enforcer comes creeping up the opposite verge and starts shooting at you when level (about a dozen shots are fatal). Watch out for the road curving to the right and forcing you back onto the tarmac - there is no turning back after rejoining the road.

13. If the helicopter bombs you while driving 'cross country', the game resets itself and sacrifices your credit. A bonus derived from this is the elimination of The Enforcer and Doctor Torpedo, thus making things a little easier for you.

14. When in a bright green territory (see table), keep well in front of the weapons van until the sharp curves. Allow it to overtake you on this stretch and, as the road straightens out again, the warning BRIDGE OUT - DETOUR ON LEFT appears.. Quickly drive into the van and you will be carried onto the bridge-verge. When you reappear, stay still and wait. When The Enforcer slides up alongside, drive slowly away and keep to the iron verge. You will be shot at, but harmlessly; do not worry as you approach the broken gap because, as long as you keep to the verge, you will pass safely across. The Enforcer, howevr,, comes to a halt on the gap and gets left behind. That should be the last you see of it – and Doctor Torpedo.

ROAD BLASTER

1. The green and red bubbles are extra fuel.

2. When you reach the first lot of mines stay in the middle lane.

3. To increase your reserve fuel, fire at each orange car or motorbike once. This increases your multiplier by one every time. Once this reaches ten you will get more score, which will eventually increase your fuel reserve.

4. Purple cars are indestructible.

5. To catch the special weapon, wait till the jet flies over. Move over to the middle lane- and this will guarantee a special weapon.

6. When you catch the nitrous oxide burner do not use it straight away.

7. The special weapons are limited. You get about 50 rounds of UZ cannon, three nitrous oxide burners, three Cruise missiles and a shield which lasts about five seconds.

8. If you have tanks at the side of the road, stay in the lane you are in and you will not be blown to oblivion.

Darren Winn, Exeter

CALL IT A SEQUEL...
AND YOU'LL LAND UP FLAT ON YOUR BACK.

Commodore Screens

They called International Karate the best beat-em-up so far. And who are we to argue? But Archer Maclean has come up with a stunner: A Third Fighter. Amazing animated background. New moves. Re-mixed music. And Balls!

Commodore 64/128 Cassette (£9.99) and Disk (£12.99). Coming soon for Spectrum and Amstrad home computers.

Mail Order: Activision (UK) Ltd, Units 3 & 4 Lloyds Close, Finedon Road Industrial Estate, Wellingborough, Northampton NN8 4FR. Tel: (0933) 76768
Access, Visa and American Express Cards welcome.

Distributed by Activision (UK) Ltd.

K.

IK+

ue?

768

SOFTWARE SUPERSAVERS

To order and receive up to date list of available stock please send cheque/postal order / Acces/Visa NO: payable to **Software Supersavers.**
Please be careful to quote your full name and address, the make and model of your computer, and your selection in block capitals to avoid any errors.
P&P inc UK £1.00 per tape overseas

102 HIGH ST, BRENTWOOD, ESSEX.CM14 4AP
TEL: 0277 261908

Software available for all other machines. Please write for lists.
NB These offers are available by mail order only and the prices shown in this advertisement supercede all previous offers.

SPECTRUM

Andy Capp	5.20
Alternative World Games	5.50
Adv Tact Fighter	6.50
Aliens (US)	6.50
Action Force (Disk 10.50	6.50
Arctic Fox (Disk 11.00)	6.50
Army Moves	5.20
Armageddon Man	9.00
ACE	3.50
ACE II (48K)	6.00
ACE II (128K)	6.50
Art Studio (48K)	9.00
Adv Art Studio (128K)	16.50
Arkanoid	5.20
Athena	5.20
Blood Valley	5.20
Best of Beyond	3.50
Basil the Mouse Det	5.20
Buggy Boy	5.20
Ballbreaker (Disk 11.00)	6.50
Boulderdash	2.50
Boulderdash II	2.50
Bards Tale (Disk 11.00)	6.50
Bravestar	5.50
Best of Elite Vol 2	6.00
Barbarian	6.50
Bubble Bobble	5.20
Battle Guadalcanal	6.40
Bangkok Knights	5.50
Battle of Britain	4.00
Battle for Midway	4.00
Big 4	6.00
Big 4 Vol II	6.50
Compendium	5.20
Colour of Magic	3.50
Captain Courageous	6.50
Combat School	5.00
California Games (Disk 9.00)	5.50
Captain America	5.50
Charlie Chaplin	5.50
Classic Collection	3.50
Catch 23	5.20
Convoy Raider	5.20
Champ Football	6.00
Challenge of Gobots	3.00
Computer Hits 3	6.50
Computer Hits 4	6.50
Cyrus II Chess	9.00
Classic I	6.50
Druid II (Enlightenment)	5.20
Deluxe Scrabble (Disk 12.00)	8.00
Deflektor	5.20
Dark Sceptre	5.20
Deathwish III	5.20
Dragons Lair	3.00
Driller	9.90
Druid	2.50
Dandy	3.50
Eidolon	2.50
Elite 6 Pak	6.50
Elite 6 Pak II	6.50
Elite Trio Pack	5.00
Enduro Racer	6.50
Exolon	5.20
Express Raider	5.50
Evening Star	5.20
Elite	6.50
Enlightenment (Druid II)	5.20
Empire	3.00
Flying Shark	5.20
Football Director	6.00
F 'n' F:Thunderceptor	6.00
F15 Strike Eagle	6.50
Freddy Hardest	5.20
Fivestar 1,2 or 3	6.50
Football Manager	2.50
Football Manager II	6.50
Five Computer Hits	3.50
Graphic Adv Creator	17.00
Gary Lineker Soccer	5.20
Galactic Games	5.50
Gnome Ranger	7.00
Gauntlet (Disk 9.00)	6.00
Gauntlet II	5.50
Gauntlet Deep Dungeons	4.00
Gunslinger	5.50
Gryzor	5.20
Game Over	5.20
Game Set Match (Disk 12.00)	8.50
Guild of Thieves	9.00
Gunboat	5.90
Gunship	6.40
Greyfall	3.00
Gunrunner	3.00
Headcoach	2.50
High Frontier	6.40
Hysteria	5.20
Hardball	4.00
Head over Heels	5.20
Hybrid	3.00
Hydrofool	5.20
Int Karate +	6.50
Int Karate	2.50
Icups	2.50
Impossible Mission II	5.50
Implosion	6.20
Ikari Warriors	5.20
Indy Jones Temple of Doom	5.50
Indoor Sports	5.00
Jackal	5.20
Jailbreak	4.00
Jewels of Darkness	9.00
Jack the Nipper II	5.20
Judge Death	6.40
Knightmare	6.50
Knight orc	9.00
Konami Coin Ops	6.50
Krakout	3.50
Konami Golf	3.50
Livingstone I Presume	5.50
Live Ammo (Disk 10.50)	6.50
Lazer Tag	5.50
Last Ninja	6.20
Iving Daylights	6.50
Leaderboard	5.50
Leaderboard (Town)	4.00
Last Mission	5.50
Mask	5.20
Mask II	5.20
Magnetron	5.20
Mad Balls	5.00
Matchday II	5.00
Meanstreak	5.00
Mercenary	6.50
Mandroid	7.00
Mario Bros	3.00
Moonstrike	5.20
Mystery of Nile	5.20
Marble Mad + Cons Set	5.00
Metrocross	6.00
Mag Max	5.20
Nigel Mansells G.P	6.50
Navy Moves	5.00
Not a Penny More	11.50
Nebulus	5.20
Now Games 4	6.50
Nemesis	5.00
Nemesis the Warlock	6.00
Nexus	2.50
Out Run Out Run	5.00
Pegasus Bridge	9.00
Pro Adv Writer	17.00
r2	5.00
Phantis	5.00
Phantom Club	5.00
Psycho Soldier	5.00
Platoon	5.50
Paperboy	5.20
P.H.M Pegasus (Disk 11.00)	6.50
Pawn (128)	9.00
PSI 5 Trading	2.50
Rampage	6.50
Ring World	6.00
Rastan	5.00
Red Led	5.50
Rygar	5.50
Rebel	5.20
Renegade	5.20
Road Runner	6.00
Roy of Rovers	6.40
Re Bounder	6.00
Space Harrier	5.50
Spitfire (Durell)	5.20
Street Hassle	5.50
Super Hang On	6.50
Solar Fire	6.00
Star Wars	6.50
Star Pawn	5.00
Southern Belle	5.00
Sword of the Samurai	6.00
Side Arms	5.50
Streetsports Basketball	5.50
Solid Gold	6.00
Shadows of Mordor	5.20
Starglider	9.00
Sentinel	6.00
Sidewize	5.20
Slaine the King	5.90
Star Games	5.00
Star Games II	6.50
Silent Service	6.50
Samurai Trilogy	5.20
Short Circuit	4.00
Slapfight	5.20
Saboteur II	6.00
Supersprint	6.40
Silicon Dreams	9.00
Stiffip & Co	6.40
Solomons Key	5.50
Survivor	5.00
720	5.00
Thundercats (Disk 10.50)	5.20
Tour de Force	5.00
The Tube	6.00
Trantor	5.50
Trivial Pursuit	10.00
Tank	5.20
Thing Bounces Back	5.50
Tai Pan	5.20
Throught the Trap Door	5.20
Tibet (When time stood still)	5.00
Uridium	5.00
Unbelievable Ultimate	5.00
Victory Road	5.20
Werewolves of London	5.50
Winter Olympiad '88	5.50
Wizard Warz	5.50
Wonderboy	6.50
Wizball	5.20
World Games	5.50
Xor	5.50
Xecutor	6.40
Yes Prime Minister	11.50
Zynaps	5.20
Ramparts	5.50
Addictaball	5.00
Bobsleigh	6.50
Compilation I (EA) (Disk 11.00)	6.50
Chain Reaction	5.90
Dynamite Dan II	3.50
Death or Glory (Disk 11.00)	6.50
Gamemaster 3D (Disk 11.00)	6.50
Iron Horse	5.20
Jack the Ripper (Disk 11.00)	6.50
Oink (Disk 11.00)	6.50
Plasmatron (Disk 11.00)	6.50
Outcast (Disk 11.00)	6.50
Predator	6.50
Salamander	5.00
Star wars	6.50
September	6.50

CBM

	C	D
Autoduel		15.00
ACE 2	6.50	10.50
Alternative World Games	6.00	10.00
Adv Music System		29.00
Art Studio	9.00	12.00
Adv Art Studio	17.00	18.00
Aliens	5.00	5.00
Apollo 18	11.00	14.00
Alley Kat	2.00	4.00
Arctic Fox	8.00	11.00
Airborne Ranger	10.00	15.00
Big 4 Vol II	6.50	6.50
Blazer	6.50	10.50
Barbarian	6.50	10.50
Blood Valley	6.00	10.00
Bravestar	6.00	8.00
Bubble Bobble	6.00	9.00
Basil Mouse Detective	6.00	10.00
Battleships	6.50	10.50
Buggy Boy	6.50	10.50
Bards Tale	8.00	12.00
Boulderdash Cons Kit	3.50	
Ball Breaker	8.00	12.00
Best of Elite Vol 2	6.50	10.50
Bangkok Knights	6.50	10.50
Chuck Yeagars Flt Trainer	7.00	12.50
Compendium	6.00	10.00
Combat School	6.00	10.00
California Games	6.00	9.00
Captain America	6.00	8.00
Classic Collection	3.00	
Charlie Chaplin	6.00	9.00
Deflektor	6.00	10.00
Druid	2.50	4.00
Druid II (Enlightenment)	5.50	9.00
Death Wish III	6.50	10.50
Defendor of Crown		10.50
Decathlon	2.00	3.50
Evening Star	6.00	9.00
Eidolon	2.50	4.00
Elite 6 Pak	6.50	10.50
Elite 6 Pak II	6.50	10.50
Epyx Epics	6.00	9.00
Empire	2.50	4.00
Elite	9.00	13.00
Eye	7.00	11.00
Exolon	5.50	9.00
Frostbyte	1.50	
Freddy Hardest	6.00	10.00
Flying Shark	5.50	9.00
Firetrap	6.50	10.50
Football Manager 2	6.50	10.50
Game Set Match	9.00	13.00
Gunboat	6.50	10.50
Gauntlet	6.00	9.00
Galactic Games	6.50	10.50
Gary Linekers Soccer	6.50	10.50
G.Gooch All Star Cricket	6.50	
Gunship	10.50	15.00
Gunslinger		10.00
Ghostchaser	1.50	
Gauntlet II	6.00	9.00
Guild of Thieves		15.00
Gryzar	6.00	9.00
Heartland	2.50	4.00
Hysteria	6.00	10.00
Int Karate	2.50	6.00
Int Karate +	6.50	10.50
Ikari Warriors	6.50	10.50
Indy Jones Temple of Doom	6.00	10.00
Infiltrator II	6.00	7.00
Impossible Mission II	6.00	9.00
Indoor Sports	4.50	
Implosion	6.50	10.50
Jackal	6.00	10.50
Jack Nipper II	6.00	10.00
Jailbreak	3.50	
Koronis Rift	2.50	4.00
Knight Orc	11.00	11.00
Kinetik	2.00	3.00
Live Ammo (5 Games)	6.00	10.00
Lazer Tag	6.00	9.00
Leaderboard Exec	6.00	9.00
Mission A.D.	2.50	4.00
Mad Balls	6.00	10.00
Matchday II	6.00	10.00
Magnetron	6.00	10.00
Meanstreak	6.50	9.50
Maniac Mansion	6.50	10.50
Mystery of Nile	5.00	8.00
Mask	6.00	9.00
Mask 2	6.00	9.00
Morpheus	6.00	9.50
Nebulus	6.00	9.50
Out Run	6.00	9.00
On the Tiles	5.00	8.00
Ogre		15.00
Paradroid	2.00	3.50
Plasmatron	6.50	10.50
Phantis	6.00	10.00
Paperboy	6.50	10.50
Pirates	10.50	15.00
Psycho Soldier	6.00	10.00
Pawn		15.00
Quedex	6.50	10.00
Ranarama	2.50	
Renegade	6.00	10.00
RMS Titanic	2.50	4.00
Red Led	6.50	9.50
Roy of Rovers	6.50	10.50
Rygar	6.00	9.00
Ramparts	6.00	9.00
Revst	7.00	10.00
Sentinel	5.00	7.00
Super Sunday	3.50	
Slaine	6.50	9.00
Shoot Em Up Cons Kit	10.00	15.00
Silent Service	6.50	10.50
Solomons Key	6.00	9.00
Supersprint	6.50	10.50
Street Baseball	6.00	9.00
Super Zaxxon	3.50	
Solid Gold	6.00	9.00
Street Basketball	6.00	9.00
720	6.00	9.00
Side Arms	6.00	9.00
Scary Monsters	5.00	8.00
Silicon Dreams	9.00	9.00
Sigma 7	3.50	5.00
Stargider	9.00	12.00
Sidewize	6.00	9.00
Super Hangon	6.50	10.50
Stealth Fighter	10.00	15.00
Tomahawk	3.50	5.00
Through Trap Door	6.00	10.50
Thundercats	6.50	10.50
Tai Pan	6.00	10.00
Tour de Force	6.00	10.00
Trantor	6.00	9.00
Tag Team Wrestling	2.50	
Ultima I, III, IV or V		14.00
Victory Road	6.00	9.00
Water Polo	6.00	9.00
W.C. Leaderboard	6.00	9.00
Wizard Warz	6.00	9.00
World Tour Golf	8.00	11.00
Wizball	6.00	9.00
World Games	6.00	9.00
Yogi Bear	6.50	10.50
Zzap Sizzlers II	3.50	

AMSTRAD

	C	D
Adv Music System		22.00
Adv Art Studio		14.00
Alternative World Games	6. 00	10.00
Action Force	6.50	10.50
Athena	6.00	10.00
Arkanoid	6.00	10.00
ACE	3.50	
Ballblazer		4.00
Batman	4.50	6.50
Bangkok Knights	6.50	10.50
Blue War		11.00
Bravestar	6.00	10.00
Blood Valley	6.00	10.00
Bubble Bobble	5.50	9.00
Barbarian	6.50	10.50
Big 4	5.00	
Big 4 Vol 2	6.50	6.50
Best of Elite Vol 2	6.50	10.50
Buggy Boy	6.50	10.50
Battle of Planets	2.50	
Barry McGuigan		4.00
Back to Future		4.00
Cop Out	2.50	4.00
Combat School	6.00	10.00
California Games	6.00	10.00
Captain America	6.00	10.00
Charlie Chaplin	6.00	10.00
Compendium	6.00	10.00
Dan Dare	3.50	
Dandy	2.50	4.00
Druid	2.50	4.00
Druid II (Enlightenment)	6.00	9.00
Dathwish III	6.00	10.00
Dragons Lair	3.00	
Doomsday Blues	2.50	
Eidolon	2.50	4.00
Explorer	2.50	4.00
Elite 6 Pak	6.50	10.50
Elite 6 Pak 2	6.50	10.50
Elite	6.00	9.00
Exolon	6.00	11.00
Evening Star	6.00	10.00
Enlightenment (Druid II)	6.00	9.50
Firetrap	6.50	11.00
Football Director	7.00	
Football Manager	2.50	6.00
Flying Shark	5.50	9.00
Football Manager 2	6.50	10.50
Freddy Hardest	6.00	10.00
Footballer of Year	3.00	
Gauntlet	6.50	10.00
Gryzor	6.00	10.00
Game Set Match	8.50	13.00
Gary Lineker Soccer	6.00	10.00
Guild of Thieves		14.00
Gauntlet II	6.00	10.00
Game over	3.50	6.50
Ghostbusters	3.50	6.50
Great Escape	3.00	
Head Over Heels	6.00	10.50
Hysteria	6.00	10.50
Hijack	3.00	5.00
Hunchback the Adv	3.00	
Howard the Duck	2.50	
Hive	2.50	4.00
Hacker	3.00	5.00
Heartland	2.50	4.00
Infiltrator	3.50	
Impossaball	2.50	
Indy Jones Temple of Doom	6.00	10.00
Impossible Mission II	6.00	10.00
International Karate	2.50	6.00
International Karate +	6.50	10.50
Ikari Warriors	3.50	
Jack Nipper II	6.00	10.00
Jewels of Darkness	9.00	14.00
Judge Death	6.50	10.50
Jailbreak	3.50	
Kinetik	2.50	4.00
Knight Orc	9.50	14.00
Knightmare	6.50	10.50
Koronis Rift		4.00
Lazer Tag	6.00	10.00
Live Ammo (5 Games)	6.50	10.50
Livingstone	6.00	10.00
Mad Balls	6.00	10.50
Mermaid Madness		4.00
Mario Bros	3.00	
Match Day	2.00	
Match Day II	6.00	10.50
Mask	6.00	10.00
Music System	9.00	14.00
Mask 2	6.00	10.00
Mercenary	4.50	
Movie	3.00	5.00
Nemesis	4.00	
Out Run	6.00	10.00
Psycho Soldier	6.00	10.50
Phantos	6.00	10.50
Paperboy	6.50	10.50
Pawn		13.00
Prodigy	2.50	4.00
Rana Rama	3.00	
Ramparts	6.50	10.50
Road Runner	6.00	10.00
Renegade	6.00	10.00
Rastan Saga	6.00	10.00
Red Led	6.50	11.00
Rygar	6.00	10.00
Roy of Rovers	6.50	10.50
Starstrike II	3.00	5.00
Sam Fox Strip Poker	3.50	
Saboteur	2.00	
Sentinel	6.00	9.00
Star Glider	9.00	14.00
Silicon Dreams	9.00	14.00
Side Arms	6.00	10.00
Street Basketball	6.00	10.00
Solid Gold	6.00	10.00
Supersprint	6.50	10.50
720	6.00	10.00
Silent Service	6.50	10.50
Slaine	6.50	10.50
Scrabble Deluxe		12.00
Solomons Key	6.00	10.00
Star Games II	6.50	10.50
Star Wars	6.50	
Side Walk	6.50	10.50
Shadowfire	2.50	4.00
Supercycle	3.50	
Shockway Rider	3.00	
Shaolins Road	2.50	
Space Harrier	3.50	
Through Trap Door	6.00	10.50
Tank	6.00	10.00
Trantor	6.00	10.00
Tai Pan	6.00	10.00
Trivial Pursuit	10.50	14.50
Thundercats	6.00	10.50
Top Gun	3.50	
Thai Boxing	2.50	4.00
T.P Baby Boomer	5.00	
V	3.00	5.00
Victory Road	6.00	10.50
Wizard warz	6.00	10.00
W C Leaderboard	6.00	10.00
Winter Sports		4.00
Wizball	6.00	10.00
Xarq	2.50	4.00
Yie Ar Kung Fu 2	2.50	

ST

Advanced Art Studio	16.00
Addictaball	11.00
Autoduel	13.50
Arctic Fox	16.00
Army Moves	13.50
ACE 2	15.00
Apache Gunship +	17.50
Airball	16.50
Amazon	9.50
Arkanoid	13.50
Art Director	35.00
Arena/Brattacus	24.50
Apshai Trilogy	16.50
Blue War	13.50
Bangkok Knights	18.00
Bravestar	13.50
Barbarians	16.50
Barbarian (Palace)	11.00
Bards Tale	20.00
Bermuda Project	16.50
Bubble Bobble	13.00
Balance of Power	20.50
Backlash	13.50
Bureaucracy	20.50
Boulderdash Cons Set	13.50
Bridge Player 2000	13.50
Charlie Chaplin	13.50
Check Mate	9.50
Chess Master 2000	20.00
Colour Writer	9.50
Captain America	13.50
Champ Wrestling	16.50
Dark Castle	18.50
Defender of Crown	20.50
Database/Calc	9.50
Degais Elite	18.00
Desk Vu	20.50
Damocles	13.50
Deathstrike	11.00
Deep Space	24.50
E.C.O	13.00
Eye	9.50
Enduro Racer	13.50
Flight Simulator II	35.00
Film Director	42.00
Football Manager 2	13.50
Flying Shark	13.50
Fahrenheit 451	9.50
Football Fortunes	16.50
F15 Strike Eagle	14.50
Gary Lineker Soccer	13.50
Gauntlet II	13.50
G.A.T.O.	20.50
Guild of Thieves	16.50
Golden Path	9.50
Gauntlet	16.50
Galax 3D	13.50
Goldrunner	16.50
Hacker	16.50
Hades Nebula	15.00
Hacker II	16.50
Head Over Heels	13.50
Hitch Hikers	20.50
Hollywood Poker	12.00
Hollywood Hijinx	20.50
Impossible Mission II	13.50
Indy Jones Temple of Doom	13.50
Impact	11.00
Into Eagles Nest	13.50
Jewels of Darkness	9.50
Karate Kid II	16.50
Knight Orc	13.50
Kings Quest	17.00
Lattice C	75.00
Last Ninja	13.50
Leaderboard	16.50
Leaderboard (Tourn)	7.00
Leather Goddess	20.50
Little Computer People	24.50
Lurking Horror	20.50
Marble Madness	16.00
Music Cons Set	20.00
Missing One Droid	7.00
Moon Mist	20.50
Mouse Trap	11.00
Metrocross	16.50
Mercenary Compendium	16.50
Macro Manager	9.50
Nine Princes in Amber	9.50
Ninja	7.50
Out Run	13.50
Ogre	14.00
Pawn	16.50
Perry Mason	9.50
Passengers on Wind for 2	16.50
Phantasie I, II or III	16.50
Pinball Factory	16.50
Planetfall	20.50
Plutos	11.00
Pirates of Barbary	9.50
Prohibition	13.50
Portal	24.00
Q Ball	13.00
Red October	16.50
Road Runner	16.50
Rana Rama	13.50
Renegade	13.50
Rings of Zilfin	16.50
SDI	23.00
Solomons Key	13.50
Starglider	16.50
Silicon Dreams	9.50
Sentinel	13.50
Star Trek	13.50
Sky Fox	12.00
Strike Force Harrier	16.50
Supersprint	13.50
Space Battle	7.50
Space Pilot	7.50
Spitfire 40	16.50
Silent Service	16.50
Side Walk	13.50
Sub Battle Sim	16.50
Space Quest	16.50
Supercycle	16.50
Slap Fight	13.50
Strip Poker	9.50
720	13.50
Suspect	20.50
S.T. Key	9.50
Suspended	20.50
Tau Ceti	16.50
Trantor	13.00
Toolkit	9.50
Tai Pan	13.50
Tee Up Golf	7.50
Thai Boxing	7.50
Top Gun	13.50
Tracker	16.50
Terrestrial Encounter	5.00
TNT	13.50
Terrorpods	16.50
T T Racer	16.50
Trivial Pursuit	13.50
Tass Times	16.50
Tenth Frame	16.50
Trailblazer	16.50
Ultima III or IV 13.50	17.50
Wizard Warz	13.50
Wizball	13.50

PERIPHERALS

JOYSTICKS	
Konix Speedking	10.00
Cheetah 125 +	7.00
Cheetah Mach 1 +	12.00
Quickshot II +	9.00
Moonraker	4.50
Comp Pro 5000	12.00

102 HIGH ST, BRENTWOOD, ESSEX CM14 4AP

NEW LOW PRICE ST!

£260 +VAT=£299

ONLY FROM SILICA

Finally, there's a personal computer that not only solves problems like other computers, but also solves the one problem that other computers have created. Affordability. Silica Shop are pleased to present the ST range of personal/business computers from Atari. The ST was designed utilizing the most recent breakthroughs in semiconductor technology, producing a personal computer that performs tasks with fewer parts. Which means it costs less to make. And less to buy. The latest ST computers now include built in power supplies and built in disk drives. The TOS operating system and GEM window environment are now on ROM chips which are already installed in the ST keyboard. This enables automatic instant booting when you switch on. Silica Shop are pleased to offer the complete Atari ST range. Our mail order department is situated in Sidcup and we have 3 retail outlets at Sidcup, Lion House (Tottenham Court Rd) and Selfridges (Oxford Street). We have eight years experience of Atari products, longer than any other UK company, and are well established as the UK's No.1 Atari specialist. With a group turnover of over £9 million and in excess of 80 staff, we offer you unbeatable service and support. We provide several facilities which you will find invaluable during your Atari computing life and most of these facilities are available **ONLY FROM SILICA**. We suggest that you read through what we have to offer, before you decide where to purchase your Atari ST.

FREE STARTER KIT - Only From Silica

When you purchase any Atari ST keyboard, you will not only receive the best value for money computer on the market, but you will also receive the following from Atari Corporation as part of the package:

** BASIC Language Disk * BASIC Manual * ST Owners Manual * TOS/GEM on ROM*

If you buy your ST from Silica Shop, you will also receive:

** NEOchrome Sampler - colour graphics program * 1st Word - Word Processor*

In addition, we at Silica would like to see you get off to a flying start with your new computer, so we have put together a special **ST STARTER KIT** worth over £100, which we are giving away **FREE OF CHARGE** with every ST computer purchased at our normal retail prices. This kit is available **ONLY FROM SILICA** and is aimed at providing users with a valuable introduction to the world of computing. We are continually upgrading the ST Starter Kit, which contains public domain and other licensed software, as well as books, magazines and accessories all relevant to ST computing. Return the coupon below for full details.

DEDICATED SERVICING - Only From Silica

At Silica Shop, we have a dedicated service department of seven full time Atari trained technical staff. This team is totally dedicated to servicing Atari computer products. Their accumulated knowledge, skill and experience makes them second to none in their field. You can be sure that any work carried out by them is of the highest standard. A standard of servicing which we believe you will find **ONLY FROM SILICA**. In addition to providing full servicing facilities for Atari ST computers (both in and out of warranty), our team is also able to offer memory and modulator upgrades to ST computers.

1Mb RAM UPGRADE: Our upgrade on the standard Atari 520ST-M or 520ST-FM keyboard will increase the memory from 512K to a massive 1024K. It has a full 1 year warranty and is available from Silica at an additional retail price of only £86.96 (+VAT = £100).

TV MODULATOR UPGRADE: Silica can upgrade the 1040ST-F to include a TV modulator so that you can then use it with your TV set. This is an internal upgrade and does not involve any untidy external boxes. A cable to connect your ST to any domestic TV is included in the price of the upgrade which is only £49 (inc VAT). The upgrade is also available for early 520ST computers at the same price.

THE FULL STOCK RANGE - Only From Silica

We aim to keep stocks of all Atari related products and our warehouse carries a stock of over £½ million. We import many software titles direct from the USA and you will find that we have new releases in advance of many of our competitors. Unlike dealers who may only stock selected titles, we have the full range. In addition, we carry a complete line of all books which have been written about the Atari ST. A range as wide as ours is something you will find is available **ONLY FROM SILICA**.

AFTER SALES SUPPORT - Only From Silica

Rest assured that when you buy your ST from Silica Shop, you will be fully supported. Our free mailings give news of releases and developments. This will help to keep you up to date with new software releases as well as what's happening in the Atari market. And in addition, our sales staff are at the end of a telephone line to service all of your Atari requirements. If you purchase an ST from Silica and would like any technical advice, we have a full time technical support team to help you get the best from your computer. Because we have both the staff and the systems specifically dedicated to providing after sales service on Atari ST computers, we are confident that our users enjoy an exceptionally high level of support. This can be received **ONLY FROM SILICA**.

FREE CATALOGUES - Only From Silica

At Silica Shop, we recognise that serious users require an in-depth information service, which is why we mail free newsletters and price lists to our ST owners. These are up to 48 pages long and are crammed with technical details as well as special offers and product descriptions. If you have already purchased an ST and would like to have your name added to our mailing list, please complete the coupon & return it to us. This information service is available **ONLY FROM SILICA**.

FREE OVERNIGHT DELIVERY - From Silica

Most orders are processed through our computer within 24 hours of receiving them. Most hardware orders are sent by the overnight GROUP 4 courier service FREE OF CHARGE to customers within the UK. This method helps to ensure minimum delay and maximum protection.

PRICE MATCH - Only From Silica

We hope that the combination of our low prices, FREE UK delivery service, FREE Starter Kit and FREE after sales support, will be enough to make you buy your Atari equipment from Silica Shop. If however, there is something you wish to purchase, and you find one of our competitors offering it at a lower price, then please contact our sales department, providing us with our competitor's name, address and telephone number. If our competitor has the goods in stock, we will normally match the offer (on a 'same product - same price' basis) and still provide you with our normal free delivery. We realise that we are not the only company who will match a competitor's price. However, if you come to us for a price match, you will also be entitled to our after sales service, including free newsletters and technical support. This makes our price match promise rather special, something you will receive **ONLY FROM SILICA**. We don't want you to go anywhere else for your Atari products. So shop at Silica, the UK's No1 Atari Specialist.

SO MUCH FOR SO LITTLE!

There is nothing that can compare with the incredible value for money offered by Atari's 520ST-FM. For only £260 (+VAT=£299), you can purchase a powerful 512K RAM computer, with a 95 key keyboard (including numeric keypad), MIDI interface, GEM, a palette of 512 colours, mouse controller, and a 512K built-in disk drive. The 520ST-FM has a TV modulator built-in, and comes with a lead to allow you to plug it straight into any domestic colour television set. The mains transformer is also built-in to the keyboard, so there are no messy external boxes. You couldn't wish for a more compact, powerful and stylish unit. Atari ST computers are now firmly established in the UK, there are nearly 500 software titles already available for a wide variety of applications and the list is growing all the time. And that's not all. When you buy your new 520ST-FM (or any Atari ST computer) from Silica Shop, you will get a lot more, including a FREE Silica ST Starter Kit worth over £100. Read the ONLY FROM SILICA section on the left, to see why you should buy your new high power, low price 520ST-FM from Silica Shop, the UK's No1 Atari Specialists. For further details of the range of Atari ST computers and the FREE Silica ST Starter Kit, complete and return the reply coupon below.

ATARI 520ST-FM NOW ONLY £260 (+VAT=£299)

520ST-FM with 512K RAM & mono monitor £399 (inc VAT) **Upgrade from 512K RAM to 1024K RAM £100** (inc VAT)

ATARI 1040ST-F - NEW PRICE

We are pleased to announce a new reduced price point on the 1040ST-F which is now available for only £499 (inc VAT). The 1040 is a powerful computer with 1Mb of RAM and also includes a built-in 1Mb double sided 3½" disk drive. The 1040 has been designed for use on business and professional applications most of which require a high resolution monochrome or colour monitor. It does not therefore have an RF modulator for use with a domestic TV set. Modulators can be fitted for £49 (inc VAT).

1040ST-F Keyboard Without Monitor	*£499 (inc VAT)*
1040ST-F Keyboard + High Res SM125 Mono Monitor	*£599 (inc VAT)*

If you would like further details of the 1040ST-F, return the coupon below.

MEGA ST's NOW IN STOCK

For the user who requires even more RAM than the 520 or 1040 ST's offer, the new MEGA ST computers are now available. There are two MEGA ST's, one with 2Mb of RAM and the other with a massive 4Mb. Both new computers are fully compatible with existing ST's and run currently available ST software. The MEGA ST's are styled as an expandable Central Processing Unit with open architecture and a detachable keyboard. They are supplied with GEM, a free mouse controller and all extras as with the 520 or 1040. Prices are as follows:

MEGA ST 2Mb Keyboard + CPU	*£899 (inc VAT)*
MEGA ST 2Mb Keyboard + CPU + SM125 Mono Monitor	*£999 (inc VAT)*
MEGA ST 4Mb Keyboard + CPU	*£1199 (inc VAT)*
MEGA ST 4Mb Keyboard + CPU + SM125 Mono Monitor	*£1299 (inc VAT)*

If you would like further details of the MEGA ST's, return the coupon below.

ATARI ST

SIDCUP (& Mail Order) **01-309 1111**
1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX

LONDON **01-580 4839**
Lion House (1st floor), 227 Tottenham Court Rd, London, W1P OHX

LONDON **01-629 1234 ext 3914**
Selfridges (1st floor), Oxford Street, London, W1A 1AB

To: Silica Shop Ltd, Dept ACE 188, 1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX

PLEASE SEND ME FREE LITERATURE ON THE ATARI ST

Mr/Mrs/Ms: ..... Initials: ..... Surname: .....

Address: .....

.....

.....

..... Postcode: .....

Do you already own a computer
If so, which one do you own? .....

GAME SET and MATCH·

Ocean

A massive compilation of 10 complete sports games – including Konami's HyperSports, Ping Pong and Tennis, Daley Thompson's Super-Test, World Series Baseball, Pool, Championship Basketball, Barry McGuigan's Boxing, Super Soccer and more. Incredible value!

Version	RRP	ACE price	Order code
Spectrum cass	12.95	**9.95**	A120SC
CBM 64 cass	12.95	**9.95**	A120CC
CBM 64 disk	17.95	**13.95**	A120CD
Amstrad cass	12.95	**9.95**	A120AC
Amstrad disk	17.95	**13.95**	A120AD

WIZBALL

Ocean

Use the combined powers of the bouncing Wizball and Cataball to collect magic water drops. Original and addictive.

Version	RRP	ACE price	Order code
Spectrum cass	7.95	**6.25**	A109SC
CBM 64 cass	8.95	**6.95**	A109CC
CBM 64 disk	12.95	**10.95**	A109CD
Amstrad cass	8.95	**7.95**	A109AC
Amstrad disk	14.95	**11.95**	A109AD

TOP GUN

Ocean

You've seen the movie, now plan your own dogfights. One and two-player action.

Version	RRP	ACE price	Order code
Spectrum cass	7.95	**6.25**	A114SC
Amstrad cass	8.95	**6.95**	A114AC
Amstrad disk	14.95	**11.95**	A114AD
IBM compatible	19.95	**15.95**	A114PC
Atari ST disk	19.95	**15.95**	A114ST

EPYX EPICS

US Gold/Epyx

Collection of four stunning classics: Summer Games, Impossible Mission, Breakdance, Pitstop II.

Version	RRP	ACE price	Order code
CBM 64 cass	9.99	**7.95**	A105CC
CBM 64 disk	14.99	**11.95**	A105CD

GARY LINEKER'S SUPERSTAR SOCCER·

Gremlin

Blockbuster title combining football management skills with exciting action.

Version	RRP	ACE price	Order code
Spectrum cass	7.99	**6.25**	A121SC
CBM 64 cass	9.99	**7.95**	A121CC
CBM 64 disk	14.99	**11.95**	A121CD
Amstrad cass	9.99	**7.95**	A121AC
Amstrad disk	14.99	**11.95**	A121AD
Atari ST disk	19.99	**15.95**	A121ST

TAIPAN

Ocean

Advanced strategy game based on the James Clavell novel.

Version	RRP	ACE price	Order code
Spectrum cass	7.95	**6.25**	A113SC
Atari ST disk	19.95	**15.95**	A113ST

BALANCE OF POWER

Mirrorsoft

A demanding game of strategy.

Version	RRP	ACE price	Order code
Atari ST disk	29.95	**24.95**	A117ST
Amiga disk	29.95	**24.95**	A117AM

STRIKE FORCE HARRIER

Mirrorsoft

All action flight simulator and shoot-em-up.

Version	RRP	ACE price	Order code
Spectrum cass	9.95	**7.95**	A115SC
CBM 64 cass	9.95	**7.95**	A115CC
CBM 64 disk	14.95	**11.95**	A115CD
Amstrad cass	9.95	**7.95**	A115AC
Amstrad disk	14.95	**11.95**	A115AD
Atari ST disk	24.95	**19.95**	A115ST

SOLID GOLD·

US Gold

A collection of five fantastic titles: Infiltrator, Leaderboard, Gauntlet, Ace of Aces and Winter Games. Hours and hours of entertainment.

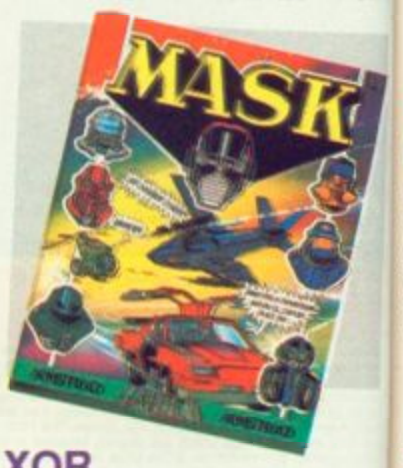
Version	RRP	ACE price	Order code
Spectrum cass	9.99	**7.95**	A122SC
CBM 64 cass	9.99	**7.95**	A122CC
CBM 64 disk	14.99	**11.95**	A122CD
Amstrad cass	9.99	**7.95**	A122AC
Amstrad disk	19.99	**15.95**	A122AD

MASK

Gremlin

Addictive gameplay based on the TV cartoon.

Version	RRP	ACE price	Order code
Spectrum cass	7.99	**6.25**	A101SC
CBM 64 cass	9.99	**7.95**	A101CC
CBM 64 disk	14.99	**11.95**	A101CD
Amstrad cass	9.99	**7.95**	A101AC
Amstrad disk	14.99	**11.95**	A101AD



XOR

Logotron

Ingenious maze game, packed with mind-bending puzzles. Original and very compulsive. Ace Rated 927.

Version	RRP	ACE price	Order code
Spectrum cass	7.95	**6.25**	A119SC
CBM 64 cass	9.95	**7.95**	A119CC
CBM 64 disk	12.95	**10.95**	A119CD
Amstrad cass	9.95	**7.95**	A119AC
Amstrad disk	14.95	**11.95**	A119AD

GAME OVER

Imagine

Exciting shoot-em-up featuring huge, evil guardians at the end of each level.

Version	RRP	ACE price	Order code
Spectrum cass	7.95	**6.25**	A110SC
CBM 64 cass	8.95	**6.95**	A110CC
CBM 64 disk	12.95	**10.95**	A110CD
Amstrad cass	8.95	**6.95**	A110AC
Amstrad disk	14.95	**11.95**	A110AD

SOLOMON'S KEY

US Gold

Wizard coin-op game packed with puzzles and invention.

Version	RRP	ACE price	Order code
Spectrum cass	8.99	**6.95**	A104SC
CBM 64 cass	9.99	**7.95**	A104CC
CBM 64 disk	14.99	**11.95**	A104CD
Amstrad cass	9.99	**7.95**	A104AC
Amstrad disk	14.99	**11.95**	A104AD

ACE SPECIAL OFFERS

Now you can buy some of the hottest titles around and save money!

WORLD GAMES

US Gold/Epyx

Eight great sports: cliff diving, log rolling, bull fighting, weight-lifiting, slalom skiing, sumo wrestling, barrel jumping and caber tossing!

Version	RRP	ACE price	Order code
Spectrum cass	8.99	**6.95**	A108SC
CBM 64 cass	9.99	**7.95**	A108CC
CBM 64 disk	14.99	**11.95**	A108CD
Amstrad cass	9.99	**7.95**	A108AC
Amstrad disk	14.99	**11.95**	A108AD
Atari ST disk	24.99	**19.95**	A108ST
Amiga disk	24.99	**19.95**	A108AM
IBM compatible	24.99	**19.95**	A108PC

S.D.I

Mirrorsoft

Strategic Defence Initiative: action plus strategy.

Version	RRP	ACE price	Order code
Atari ST disk	29.95	**24.95**	A116ST
Amiga disk	29.95	**24.95**	A116AM

DEFENDER OF THE CROWN

Mirrorsoft/Mindscape

Strategy and combat backed by graphics you would not believe!

Version	RRP	ACE price	Order code
CBM 64 disk	14.95	**11.95**	A106CD
Amiga disk	29.95	**24.95**	A106AM

ARKANOID

Ocean

Really enjoyable Breakout clone with 32 levels.

Version	RRP	ACE price	Order code
Spectrum cass	7.95	**6.25**	A112SC
CBM 64 cass	8.95	**6.95**	A112CC
CBM 64 disk	12.95	**10.95**	A112CD
Amstrad cass	8.95	**6.95**	A112AC
Amstrad disk	14.95	**11.95**	A112AD
IBM compatible	19.95	**15.95**	A112PC
Atari ST disk	19.95	**15.95**	A112ST

STAR GAMES 2

Gremlin

A compilation of superb titles including Ball Blazer, Eidolon, Knight Games, Highway Encounter, and Trail Blazer. Stunning value.

Version	RRP	ACE price	Order code
Spectrum cass	7.99	**6.25**	A102SC
CBM 64 cass	9.99	**7.95**	A102CC
CBM 64 disk	14.99	**11.95**	A102CD
Amstrad cass	9.99	**7.95**	A102AC
Amstrad disk	14.99	**11.95**	A102AD

ACE MAIL ORDER

- Fast delivery
- Friendly service
- Fat discounts

HOW TO ORDER

Just make a note of the details of the items you want, including the order codes. Then fill these in on one of the "ACE READER OFFERS" forms printed on page 143.

Post this, together with your credit card details or cheque to the Free Post address listed. You need pay no postage.

Alternatively ring **0458 74011** and ask for ACE Credit Card Orders.

PLEASE NOTE

1. All items are despatched by first class mail.
2. We have tried to list only those versions of software which are available NOW.
3. All prices include VAT, postage and packing.
4. You will normally receive software within 7 days of ordering. But please allow 2-3 weeks in case of temporary shortages.

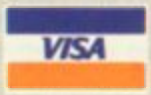
SUBSCRIPTION OFFER

If you want an even better deal, turn back one page and have a look at our subscription offer. It'll save you another £10!!

Order form printed on page 143 (inside Pink Pages!)

CREDIT CARD HOTLINE

0458 74011



WISDOM

If you're someone who possesses such *intelligence*, *vision* and *far-sightedness* as to take out a 12-month subscription to Advanced Computer Entertainment....

FOLLY

...then we the gullible and over-generous publishers are *crazy* enough to offer you...

MONEY

...a further *£10* (TEN pounds) discount off the already discounted software featured on the following two pages, ...

SEX

...an offer open to persons of both male and female gender.

HOW THE SUBSCRIPTION OFFER WORKS

- First make your selection of software items from the following two pages.
- Then use one of the FREE POST Reader Offer order forms on page 143 to make your order.
- By ticking the subscription box on the form you get the next 12 issues of ACE for £17.95 AND a £10 discount off your software order.
- So if you buy software totalling £19.95 at the discounted prices printed overleaf, you can have it for just £9.95. Or you can have any item which we're selling at £10 or less absolutely free!
- There's no catch. Far from it. Subscribing to ACE is the best way of guaranteeing your monthly copy post free and hot off the press.

ACCESS / VISA HOTLINE ✆ 0458 74011

If you prefer you can order your subscription by dialling 0458 74011 and asking for ACE Credit Card Orders

ACE PINK PAGES

In these Pink Pages are the first of our regular Buyers Guides to home computer hardware and software. The guide is intended to give you the information you need to buy the right hardware and software at the right price. We've listed details of 12 basic machines and their various models, plus consoles; and in the software section we've given the lowdown on 50 games we recommend.

Each month we'll be updating the information to keep you informed of the swings and roundabouts of prices and availability. We'll also be spotlighting a particular area; look out next month for a guide to peripherals.

We've also got the first of our *Reader to Reader* pages; in here you'll be able to place your own small ads – *free, gratis and for nothing.* Is there a better place to sell your machine when you want to upgrade? In *Reader to Reader* you'll also find Adventure Helpline (a boon to all those stuck in a dark room with a goblin).

We hope the ACE Pink Pages will prove a valuable reference guide to anyone making a computer hardware or software purchase, and to those seeking help from or contact with other readers. They're *your* pages; so please write in and make use of them.

The ACE buyers' guide is essential reading for anyone who is considering buying a new computer, whether it will be your first ever foray into the micro market, or you hope to upgrade your current system. We've compiled a list of features and specifications for all the models suitable for home use in the shops. Graphics, sound, software availability, prices, bargains..It's all here.

Before buying

Even if a new computer is only a dream at the moment, the buyers' guide will make it clear just what's on offer, and help you decide which system is best for you. But before you rush out to the shops there are two things you need to consider carefully.

Firstly, how much you can afford to spend, whether it's in cash, hire purchase, or plastic money. Remember to leave yourself a bit of money/credit over for software, and if possible, for peripherals. It may only be a couple of months before you decide you can't cope any longer without a disk drive, or a monitor.

Secondly – and just as important – what do you want to use the computer for? Are you really going to learn to program? Do you sincerely want to put your home accounts on computer, or produce the company newsletter? Do you want a 'serious' micro, a games micro, or something that combines a bit of both? Think carefully about these points before you buy; there's nothing worse than being lumbered with a machine that doesn't really suit your purposes.

The ACE Buyers Guide can't make your mind up for you; but we can give you the facts that will allow you to make a sensible decision.

Where to buy

Basically, you have four choices:

- the high street chain store – Dixons, Currys, Boots, etc.
- the independent computer specialist shop
- a mail order company
- second hand.

In the high street stores you should get a fair price for your machine; you should also be able to take it away with you immediately. Furthermore, many stores offer attractive 'bundles', giving you lots of extra goodies with the basic machine. But the salesperson behind the counter won't necessarily be very knowledgeable about the systems you wish to choose between. Also, it is not always possible to have an in-depth demonstration of the various machines on display.

In an independent specialist shop, the salesperson could well know the machines better and be able to demonstrate them more fully but you might have to pay slightly more for the system.

If you buy on mail order, you can't, of course, have the machine immediately and you can't have a demo of it, but you might come across a cheaper price. If you order your micro through the post, make sure you know exactly what components you are getting before you send off your money, send a covering letter with any money and keep copies of those letters, and keep a note of the cheque/PO number. If possible, stick to a mail order company you know and trust.

Buying a micro second hand has advantages other than price. Frequently, the previous owner will be selling software and possibly some peripherals with the machine, so you can start up with a more complete system. Obviously, however, software and add-ons being sold with the machine will bump up the asking price, so check the price of the individual components first – they may not be the bargain they seem! Second hand micros can be found on offer in the specialist computer magazines, usually in a classified advertising section towards the back. It's a good idea to try to buy from someone who lives reasonably near you, so that you can see the machine before you part with your money and have a demonstration.

Again, before you pay, check what you're getting for your money, and even if you're buying from your best friend, it would be no bad thing to put down in writing what you'll pay for what. Remember that you run the same risks buying second hand computers as second hand cars; you may end up with a duffer.

Setting up

Apart from the computer itself, there will be plenty of other items you need to buy in order to get your system up and running. These can all too easily be forgotten in the excitement of buying the computer, so go through this checklist now – you don't want to spend all Christmas waiting for the shops to open before you can load up your favourite game.

- **Plugs**: most micros don't come complete with them. Nor do disk drives, tape decks, monitors...
- **Fuses:** check that the plug has the right fuse in it (normally 3 amp) before you get it home.
- **Leads:** yes, the micro may well work with the television, but is the correct lead in the packaging or do you need to buy it separately?
- **Adaptor/trailing socket:** if the number of plugs needed comes to more than one, are you sure that your power points can cope? An adaptor will almost certainly be essential, and a trailing socket (box with three or four plug sockets on it) is a good idea, because there is a Murphy's Law of computing which states that a micro will always use more power sockets than you expect
- **Y splitter:** jolly handy if you're going to use the micro with the television. A Y splitter is a box which fits into the TV socket (on the TV itself) and will take both the TV input lead and the computer lead. You can then switch between one and the other fairly easily, rather than fumbling blindly behind the television for half an hour when you want to watch *EastEnders*.

Where to set up

Custom-made mahogany-look computer desks are for the unbearably affluent only. Basically, don't set the machine up so that the screen faces a window (you won't get to see much if you do). Remember that cables between keyboards/monitors/tape decks/disk drives are usually too short to be more than six inches away from each other, and that if the keyboard ends up sitting on the floor the cat will decide it's an ideal sleeping spot. Don't spill coffee (or indeed, anything stronger) over any of the units, particularly not the keyboard. Don't wave magnets near your disks or the drive, and if you smoke, don't drop ash over any of it.

Categories

We've tried to include details of all the salient features of the micros on the market, divided into particular categories.

- **Memory**: this refers to the total amount of Random Access Memory (RAM), not the amount left free to the user.
- **Packaging:** it's worth checking the details here against the price. A micro that appears expensive may come ready packaged with a monitor, tape deck or disk drive.
- **Disks:** does the machine use disks? If so, how much do they hold and how much do they cost? Is the disk drive built-in or external? Are add-on drives available? Is much software available on disk?
- **RRP:** all recommended retail prices we've quoted include VAT
- **Display:** many home/games micros are easily hooked up to a television, and this can be the most convenient and least expensive option. However, all computers (except the games consoles) can be connected to a dedicated monitor, which will give you a clearer picture, and save household arguments if you plan to use the family TV.
- **Graphics:** *Resolution* indicates the quality of screen display possible (the higher the figures the better);*Palette size* refers to the total number of colours available on the machine; *Colours* to the number that can be used on screen at any one time. *Sprites* and *Scrolling* refer to built-in hardware features (particularly useful for games) rather than effects that can be programmed in.
- **Sound:** tells you what kind of chip the computer uses to produce sound, what the speaker quality is like, and whether it can be used with the MIDI standard for linking computers and musical instruments
- **Hardware:** lets you know what the keyboard is like – can you use it for serious purposes?; tells you if it's possible to use a joystick or a mouse; and lists the ports in to which expansion devices can be plugged.
- **Software:** gives you the low-down on the amount and quality of software available for the machine at the moment in the various categories, and also makes a prediction about the level of future support.
- **Buying tips:** guidelines on what the bargains might be and where they might be picked up. Plus information on your rights under guarantee and what to do if the machine breaks down (God forbid!)

Hardware

Acorn Archimedes

Models: Archimedes 305, 310 and 310M

Package: Keyboard, mouse and drive; keyboard, mouse, drive plus monitor (colour or mono); 310M – M denotes inclusion of PC emulator

Memory: 305 512K
310 1Mb

Processor: Acorn ARM

Recommended Retail Price

305 no monitor	£801.60
305 mono monitor	£859.10
305 colour monitor	£1031.60
310 no monitor	£889.00
310 mono monitor	£946.50
310colour monitor	£1119.00
310M no monitor)	£958.00
310M mono)	£1015.50
310M colour	£1188.00

Disks

Format	3 1/2 inch
Price	Around £3.00
Capacity	800K formatted
Software	All on disk
Add-on drives	Yes
Built-in	Yes

Performance
Good and fast

Graphics

Resolution	either 320x256 or 640x256 or 640x512 (multi-synch monitor)
Palette	4096
Colours	from mono up to 256 (320x256) or 16 (640x512)

Display

TV	No
Monitor output	mono – composite video colour – RGB + sync
Monitor supplied	depends on package bought (see below)
Options	Acorn dedicated. 14 inch medium resolution, colour; 12 inch high res. mono

Performance

Sprites	1
Scrolling	No
Speed	Fast

Sound

Sound chip	Custom chip
Speaker quality	Good
MIDI	Yes
Stereo output	Yes
Channels	16 (8 stereo pairs)

Performance 6 octaves, one internal loudspeaker

In brief...

The Archimedes is at the cutting edge of micro technology. As such it is not cheap; nor does it have the software base of longer-standing machines. It's very exciting, but one to leave to the real enthusiasts for the time being.

Hardware

KEYBOARD: 103 keys, programmable

BBC Master series

Models: Master 128, Master Compact

Package:
128 – keyboard plus monitor.
Compact – available in four packages:
(1) Complete system including keyboard (with integral disk drive), monitor and printer.
(2) Keyboard/drive only
(3) Keyboard/drive plus mono monitor.
(4) Keyboard/drive plus colour monitor.

Memory: 64K main RAM
64K sideways RAM

Processor: 65C12 (6502 compatible)

Recommended Retail Price

128	£457.35
Compact	
Entry system	£399.85
Mono system	£457.35
Colour system	£629.85
with printer	£1084.45

Disks

Format	
128	5 1/4 inch
Compact	3 1/2 inch
Capacity	
128	320K formatted;
Compact	640K formatted
Software	most available on disk
Price of Blank Disks	£1.00 to $3.00 (less in bulk)
Add-on drives	yes
● **Performance**	good
Built-in	
128,	no;
Compact,	yes

Graphics

Resolution	640x256 mode 0; 320x256 modes 1 and 4 160x256 modes 2 and 5
Palette	16
Colours	modes 0, 3, 4 and 6 have 2 colours modes 1 and 5 4 colours modes 2 and 7 8 colours

Mode 7 is a "teletext" text and block graphics mode. Modes 3 and 6 are text only.

● **Performance**

Sprites	none
Scrolling	no
Display	
TV	yes
Monitor output	Composite video
Monitor supplied	
128,	no
Compact,	yes (see Package above)
Monitor options	Acorn dedicated models
Spaghetti factor	
128	average
Compact,	low

Sound

Speaker quality	good
Stereo output	no
MIDI	third party interfaces available
Channels	4

● **Performance** good

Hardware

KEYBOARD: 64 keys plus 10 function keys and 19 key numeric keypad. Standard raised keys with audible tactile feedback.

JOYSTICK/MOUSE: Non-Atari standard analogue to digital ports can be used for joysticks. Takes most third party mice

In brief...

Master series intended as educational/scientific tools, with these two machines at the "homey" end of the range. Games/entertainment not recommended as main use, as leisure software is not always converted to BBC format.

PORTS:
128 – 2 enhanced Acorn cartridge slots ● disk interface ● Econet interface ● Centronics compatible parallel printer ● RS432 serial ● phono socket ● UHF channel ● Composite video ● RGB TTL ● 20 way IDC connector user port ● 40 IDC connector for second processor ● cassette interface ● 15 way D-type analogue to digital

Compact – disk interface ● Centronics compatible parallel printer ● 50 way edge connector expansion phono socket ● Composite video ● RGB TTL ● joystick/mouse

Software

EXISTING BASE: good, but only because of BBC compatibility

CURRENT RELEASES: steady flow, but not too numerous.

PROSPECTS: good for education and similar; poor for games

Main profile is in educational/scientific arena; games tend to be either BBC B games (and thus configured into 32K Ram) or bigger (not necessarily better) versions of BBC B titles.

GAMES: The Master arcade scene's poor, with much dating back to old Beeb days. The same goes for adventures, but memory limitations of BBC even more apparent here.

GRAPHICS: a few; one or two of them outstanding.

MUSIC: fair selection

Cassette loading
supported only on 128

Buylines

MAINTENANCE: Within one year's guarantee, return faulty machines to dealer

BEST BUY PRICE: As RRP

SECOND HAND AVAILABILITY: Limited. Try education magazines as well as computer press.

Both machines are upwardly BBC B compatible. Compact has built-in disk drive tucked under keyboard. Distinctive BBC brown and cream styling.

auto-repeat rate. Keyboard has surprisingly cheap feel given quality of machine

JOYSTICK/MOUSE: 3 button mouse supplied; joystick not supported

PORTS: RS 423 serial ● Centronics compatible parallel ● 9-pin mouse socket ● 3.5mm stereo jack ● 64 way Din ● 41612 expansion porv ● IEC 320 video outlet ● I/O interface (BBC compatible)

Software

EXISTING BASE: One game (Zarch), couple of databases (from Minerva Systems), art packages under development

CURRENT RELEASES: See above;

GAMES: One arcade tiitle (ACE Rated 979) and at least one more on the way. A couple of adventures in development.

GRAPHICS: Potential is enormous; currently a couple of packages in the pipeline

MUSIC: Again, enormous potential. Very little activity as yet, however.

SOFTWARE FORMAT: Disk only

PROSPECTS: Very good, but not necessarily for games market

Buylines

BEST BUY PRICE: As RRP

SECOND HAND AVAILABILITY: Not yet

MAINTENANCE: One year's guarantee. Faulty machines – return to dealer

Amstrad CPC

Models CPC 464, CPC 664, CPC 6128

Package Keyboard, monitor (mono or colour) plus built-in tape/disk, plus software (usually 12 games), joystick. CPC 664 is no longer manufactured but may be available on special offer from retailers in different packaging configurations.

Memory: 464/664 64K
6128 128K

Processor Zilog Z80

Recommended Retail Price

464 mono	£199.99
464 colour	£299.99
664 unavailable	
6128 mono	£299.99
6128 colour	£399.99

Disks

Format 3 inch, flippable
Capacity 180K formatted per side
Software Yes, although disk versions may be harder to find in shops than tape.
Price about £3.00
Add-on drives Amstrad DDI-1 first drive for CPC464, Amstrad FD-1 or third party drives for any CPC.
Built-in 464 no
664/6128 yes.

● **Performance**
Reliable and quick

Graphics

Resolution	Mode 1	320x200;
	Mode 2	640x200
	Mode 0	160x200
Palette	27	
Colours	mode 1	4
	mode 2	2
	mode 0	16

Display
TV Yes
Monitor supplied Yes
Options Stick with Amstrad's own; need external power supply to use any independent models.

● **Performance**
Sprites None
Scrolling Vertical (rough) and Horizontal (very rough).
Speed Average to slow

Sound

Sound chip AY-3-8912
Speaker quality Adequate
Stereo output Yes, need cable
MIDI No
Channels 3

● **Performance**
Has 8 octaves, but is basically as for the Spectrum +2 – but it does have stereo output, if a little rudimentary

In brief...

The Amstrad CPC family is a value-for-money and versatile breed. You get everything you need and the whole business needs just one plug. They'll do sterling service as games micros, but they are also able to turn their hands to more serious matters.

Hardware

KEYBOARD: 74 raised plastic keys with audible tactile feedback. Separate cursor cluster and redefinable numeric keypad. Very useable for word processing etc.

JOYSTICK/MOUSE: Standard 9-pin D-type. Third party mouse devices are available.

PORTS: CPC 464 ● PCB edge connector – takes disk drive and RS232C interface ● Centronics parallel ● 6-pin Din RGB with sync luminance ● sync3.5mm stereo socket ● joystick ● cassette port ● CPC 664/6128 ● PCB edge connector – takes RS232C interface ● Centronics parallel printer ● Add-on disk socket ● Joystick ● Cassette port ● RGB with sync luminance ● sync 3.5mm stereo socket ● expansion/I/O ● TV

Software

EXISTING BASE: Good, even if not as large as Spectrum or C64

CURRENT RELEASES: Reasonable; most major Spectrum and C64 titles are converted.

GAMES: Good, but some converted titles run slower than the Spectrum or C64 originals. Adventures OK, but Infocom considering withdrawing support for this format.

GRAPHICS: Good selection of titles.

MUSIC: Reasonable number of titles, but poor in comparison with C64.

SOFTWARE FORMAT: 464 tape, using built-in tape deck; 664/6128 disk, using built-in disk drive

SOFTWARE LOADING: Tape loading is reasonably quick and reliable; disk loading fast and reliable.

PROSPECTS: Uncertain. After initial interest, sales of CPC software have dwindled but there should still be areasonable amnount of games and utilities around.

Buylines

BEST BUY PRICE: Curry's is offering £20 off both and mono versions of the 464 in part exchange for an old computer. Dixon's has colour 6128s at £349.99. You could also try for a CPC 664 for around £60.00, but these are becoming increasingly rare. If the extra memory *of the 6128 is not important, the* CPC664 can represent a bargain if you can find one.

SECOND HAND AVAILABILITY: Very good. Often plenty on offer in classified ad sections of specialist magazines

MAINTENANCE: One year's guarantee. Faulty machines return to dealer. 664 statutory rights only.

Amstrad PCW

Disks

(8256, 8512 Drive A)
Format disks
Format 3 inch flippable
Capacity 180K formatted per side
(8512 Drive B, 9512)
Format 3 inch double-sided
Capacity 720K formatted
Price of Blank Disks about $3.00
Add-on drives from third party companies only, mainly 5.25 inch format.
Add-on drives have been produced to take 5.25 inch disks, so that standard ASCII files in CP/M format can be transferred to the PCW machines

● **Performance**
Reliable, reasonably fast and quiet. In addition the machines reserve some of their memory for use as a RAM drive, with obvious benefits in speed.

Graphics

Display
TV no
Monitor: supplied
monochrome only,giving 90 column text display.

Resolution 720x256
Palette
8256, 8512 green and black,
9512 black and white
Colours N/A

Models: PCW8256
PCW8512
PCW 9512

Package:
8256 – keyboard, monitor with built-in single disk drive, dot matrix printer, Locoscript 1 word processing software, CP/M operating system, DR Logo.
8512 – as 8256 above but with two built-in drives.
9512 – restyled keyboard, monitor with single built-in disk drive, daisy wheel printer, Locoscript 2 word processing software,

Memory:

8256	256K
8512	512K
9512	512K

Processor: Zilog Z80

Recommended Retail Price:

PCW 8256	£343.85
PCW 8512	£458.85
PCW 9512	£573.85

● **Performance** N/A

Sound

Sound chip none as such
Stereo output no
Channels N/A
● **Performance** beeps only. Some third party sound enhancement modules available.

In brief...

The PCW range was designed as a word processing machine rather than a general purpose computer. Non-word processing software was produced after sales rocketed. Not recommended as a games machine

Hardware

KEYBOARD: Includes extra keys for word processing functions. Keyboard in 9512 a substantially improved version.

JOYSTICK/MOUSE Not supported. Joysticks and mice can be attached via a separately bought interface.

PORTS: One expansion port takes RS232C serial and Centronics Parallel interface ● Printer port for bundled printer
SPAGHETTI FACTOR: Low. Only one plug needed. Cable from keyboard to monitor; two cables from monitor to bundled printer.

Disk drives are set "vertically" in monitor casing to right of screen.

Short monitor to printer cable means printer must be placed to left of monitor. Monitor to keyboard cable means keyboard sits naturally 6 inches to a foot in front of monitor.

Software

EXISTING BASE: not wide but generally programs of good quality. Appeals to specialist/niche type markets.

CURRENT RELEASES: very few.

PROSPECTS: would be poor but for launch of 9512. Revival will depend on new machine's popularity.

GAMES: Arcade titles are very scarce and, of course, monochrome only. Adventures are slightly more numerous, but again the range is small. A number of Infocom titles available under CP/M, but outlook for future releases uncertain.

GRAPHICS: very few but some low-end CAD-type software available.

MUSIC: none – machines not configured as such.
SOFTWARE FORMAT: Disk only. Good for small business applications.

Buylines

MAINTENANCE: One year's guarantee. Faulty machines return to dealer

BEST BUY PRICE: As above. Generally not sold below RRP.

SECOND HAND AVAILABILITY: **PROSPECTS:** for 8256 and 8512, good. 9512 too new for second hand market as yet.

Apple Macintosh

Models: Macintosh SE
Macintosh II

Package: Monitor with built-in cpu and disk drive, separate keyboard

Memory: 1Mb

Processor:
SE Motorola 68000
II Motorola 68020

Recommended Retail Price
SE £2,294.25 upwards
II £4,329.75 upwards

Disks

Format 3.5nch
Price Around £3.00
Capacity 800K
Software All on disk
Add-on drives Yes
Built-in Yes

● **Performance**
Fast and reliable, but watch out for US software that hasn't been thoroughly tested

Graphics

Resolution SE – 512x342
II – 640x480
Palette
SE – black, white and grey shades
II with colour monitor – 16 million
Colours with colour monitor – 16 to 256

Display
TV no
Monitor output integral monitor
Monitor supplied Built in
Options
SE use dedicated model only
II Apple hi-res monochrome or AppleColor hi-res RGB

● **Performance**
Sprites – None
Scrolling – None
Speed Reasonably fast

Sound

Sound chip Apple (ASC)
Speaker quality Good
Stereo output
SE No;
II Yes
MIDI Third party interfaces available.
Channels 4

● **Performance** Good

Hardware

KEYBOARD: Supplied 81 keys including function keys and numeric keypad. Optional extra is the Apple Extended keyboard, with 105 keys

JOYSTICK/MOUSE: Joystick not supported. High quality one-button mouse supplied with machine

PORTS:
SE 2; Apple Desktop Bus connector ● 2 RS232/RS422 serial ● External disk drive ● 96-pin Euro-Din expansion slot SCSI – DB-25 connector ● External audio amplifier
II:2 RS232/RS422 serial DB-25 SCSI T

Software

EXISTING BASE: Wide range of software exists in virtually all fields except games.

CURRENT RELEASES: adequate; largely of US origin and in the business or DTP field

GAMES: very few arcade games, but adventures are more plentiful

GRAPHICS: lots of interesting software for those involved in DIY publishing

MUSIC: Very well supported for MIDI software – but it's expensive stuff

SOFTWARE FORMAT: All software supplied on disk

SOFTWARE LOADING: Quick and reliable

PROSPECTS: Excellent, especially in business and DTP

Buylines

BEST BUY PRICE There isn't much aof a discounted market in Macs; you generally have to pay the list price

SECOND HAND AVAILABILITY: Reasonable, but not exactly cheap. Check small ads in specialist magazines.

MAINTENANCE: One year's guarantee. Apple offers Applecare – 'insurance' you take out to cover cost of repairs after guarantee has lapsed.

In brief...

A very expensive up-market machine for those keen on desk-top publishing, wimp systems, and up-market software. If you can afford it, great – but remember that software is very expensive. Games are lmostly imited to icon-driven adventures (little arcade action software available). Good for MIDI musicians, but be prepared to pay through the nose.

Atari ST

Models: Atari520STFM, 1040STF, Mega STs

Package: 520STFM and 1040STF keyboard with built-in disk drive

Memory:

520STFM	512K
1040STF	1Mb
Mega ST	2 or 4Mb

Processor:
Motorola 68000

Recommended Retail Price

520STFM	£299.99
1040STF	£499.99

Discs

Format	3 1/2 inch
Capacity	360K formatted (1/2 Mb drive) 720K (1Mb drive)
Software	only supplied on disk
Price of Blank Disks	about £3.00
Add-on drives	yes
Built-in	yes
Performance	Fast and reliable

Graphics

Resolution	high res 640x400 medium res 640x200 low res 320x200
Palette	512
Colours	monochrome in high res, 4 colours in medium res, 16 in low res
Display	
TV	
520STFM	yes.
Other models	via TV modulator
Monitor output	RGB/monochrome
Monitor supplied	no

Options:dedicated Atari monitors, in monochrome or colour, SM124 high res mono, SC1224, medium res, colour

Performance

Sprites	none
Scrolling	good vertical; poor horizontal

High resolution is only available on mono monitors; medium and low resolutions are only available on colour monitors or TVs.

Sound

Sound chip	AY-3-8912
Stereo output	no
MIDI	yes
Channels	three

Performance
8 octaves, envelope shaping.

Hardware

KEYBOARD: 96 keys including 10 function keys. Full travel keyboard with audible click.

JOYSTICK/MOUSE: Joystick ports are standard. Two-button mouse supplied with machine

PORTS MIDI out (5 pin DIN) • MIDI in (5 pin DIN) • Audio out • Audio in • RGB monitor • mono monitor • serial/modem port • second disk • hard disk • mouse/joystick • joystick • cartridge • TV

In brief...

Excellent as a general purpose home machine for games, small business, and productivity – it's also the number one choice for MIDI musicians. The ST's price could still give it the edge for artists over the Amiga.

Software

EXISTING BASE: Though on the low side by 8-bit or PC standards, the number of ST titles makes it the best-supported of the new machines.

CURRENT RELEASES: Most major software houses convert their output to ST now, and several smaller houses specialise in ST titles.

PROSPECTS: Very bright indeed. Could soon rival Spectrum and C64 for number of new releases.

GAMES: Range of arcade titles isn't bad and adventures, though rarer, are generally of very high quality

GRAPHICS: Impressive, with several first-rate packages on the market.

MUSIC: excellent. Many companies producing sound editors, samplers, synths, etc

SOFTWARE FORMAT: Disk only.

SOFTWARE LOADING: A 360K disk can't hold a really large ST program, so two-disk titles are becoming increasingly common. The disk-changing these require can get tedious, especially where you've got to swap disks during play.

Buylines

MAINTENANCE: One year's guarantee. Return to dealer if faulty

BEST BUY PRICE: You won't get much under the RRP, but try for special bundles. WH Smith, for instance, is selling the machine together with £200 worth of software.

SECOND HAND AVAILABILITY: Yes, look in classified ads of magazines.

The ST is an attractive looking machine with slanted function keys above similarly styled slats. It was one of the first machines to include a disk drive in the side of the console – this design is now also taken up by other manufacturers.

M E G A B Y T E
SCOTLANDS PREMIER COMPUTER CENTRE
12 Ettrick Square, Town Centre, Cumbernauld. G67 1ND.

PROUDLY PRESENT

A LINE UP OF COMPUTER AND PERIPHERAL PRODUCT TO SUIT THE TASTE AND BUDGET OF ALL ENTHUSIASTS FROM ALL OVER THE UNITED KINGDOM. WE PRIDE OURSELVES IN ATTEMPTING TO SATISFY THE NEEDS OF ALL YOUR COMPUTING INTERESTS. CALL US ON 0236 738398 OR BETTER STILL COME UP AND SEE US SOMTIME.

ATARI 520STFM.....299.00
ATARI 1040 STF.....499.00
ATARI MEGA ST2.....999.00
ATARI MEGA ST4.....1299.00
ATARI 130XE PACK.....129.95
ATARI 65XE CONSOLE.119.95
ATARI 2600 CONSOLE.49.95
All Atari computers and games consoles come with free s/ware
Phone or SAE for details.

The fabulous SEGA games machine, unbelievable graphics on a T.V.
SEGA Games console.....99.00
Phaser gun.....45.00

The astounding NINTENDO games machine with controllers, light gun and R.O.B. the robot with two games to wet your appetite.....159.00
NINTENDO games unit.....99.00

Commodore AMIGA A500
.....499.00 inc Vat.....
Plus:::::Deluxe Paint
.....Skyfox
.....Terrorpods
.....TV Modulator FREE

SINCLAIR PLUS 2.....139.95
SINCLAIR PLUS 3.....199.95
One with cassette drive, one with disk drive, the choice is yours. Both come with masses of free software. Call for details.

For the man who has everything. The husband or the father, always a problem at Christmas. Your problems are over.....
THE PSION ORGANISER
MODEL CM.....99.00
MODEL XP.....135.00
Lots of addons and software always in stock. Send for details and price list.

All our Computer & Games Machine come with free software. Checkout the freebies you get with the list below.

Atari ST's : 5 Disks, 5 Public Domain Disks, Neochrome, 1st Word, DB Master & Mouse Mat....OR a 3 Game Entertainment pack (Titles may vary).....Sincalr +2 & +3 : 6 Games and Joystick.....SEGA : "Hang on" and controllers.....NINTENDO:Mario Bros, Gyromite, duck shoot.(depends on pack).....Atari 2600: Two Free Cartidges... Atari 65XE: Flight Sim II & Bughunt.

MEGABYTE is one stop computer Christmas Shopping we accept all the major credit cards and offer credit facilities. We Accept Access and Visa over the phone and with the addition of £5 to your ordr we will send your goods by Securicor overnight delivery service.

TELEPHONE 0236 738398

MEGABYTE is about to celebrate it's third Christmas and to mark the occasion we are doing the old place up a bit. To help us give you a better service and to give us more room to display SCOTLANDS largest range of software, computers and peripherals. We are launching the new look MEGABYTE with a bang.
There will be a carnival of competitions and prizes. Try your Skill at becoming Scotlands best gamesplayer. The company with the high scoring joysticks ; EUROMAX will be there displaying their range of joysticks and controllers and giving out prizes to the sharp shooters.
Top six scores of the day win the goodies. If you are not so hot on the joystick come along anyway you could win one of twenty spot prizes of software for your computer just for being there. Enter the Quiz Competition, test your knowledge and win a prize.
We'll see you there on Saturday the 12th and Sunday the 13th. of December.

ELECTRONIC ARTS
We Stock the full range of Electronic Arts software
The new releases:
Pegasus
Earl Weavers Baseball
Chuck Yeagers Flight Sim.
Starflight
World tour Golf
Across a wide range of home and business computers.
Plus all the golden oldies.
10% off all Electronic Arts titles from now until 1988.....

The Commodore 64
+ C2N Cassette
+ 10 games
+ Gunship
+ Slikstik Joystick
For an incredible £169

Star NL10 Printer
+ Interface
+ Printer Cable £245.00

For a limited period of time we can offer you the ATARI 1040STF for £399.00 £100 off RRP Call now while stocks last.....

Atari XL/XE

Models: Atari 800XL (no longer manufactured), Atari 65XE, Atari 130XE

Package:
800XL retailers' own – look for keyboard, plus tape deck, joystick and software
65XE Atari Starter Pack includes keyboard, tape deck, joystick, software (10 games)
130XE Atari Starter Pack includes keyboard, tape deck, joystick, software (5 games)

Memory:

800XI	64K
65XE	64K
130 XE	128K

Processor: 6502

Recommended Retail Price

800XL	none
65XE	£129.99
130XE	£139.99

Disks

Format	5.25 inch
Price	Around £1.00
Capacity	360K formatted
Software	Most titles available on disk
Add-on drives	Yes
Built-in	No
● **Performance**	Good

Graphics

Resolution	320x192
Palette	256
Colours	128
Display	
TV	Yes
Monitor output	Composite video
Monitor supplied	No
Options	No Atari dedicated monitor manufactured. Use TV or monitor with composite video output
● **Performance**	
Sprites	8
Scrolling	No
Speed	Average

Sound

Sound chip	Atari custom chip
Speaker quality	Output thru TV
Stereo output	No
MIDI	Not supplied. Third party interfaces available.
Channels	4
● **Performance**	Good

Hardware

KEYBOARD: 62 keys including some special function keys for BASIC commands

JOYSTICK/MOUSE Standard joystick ports; mouse not standard

PORTS: Rom slot ● 2 joystick ● edge connector ● monitor

In brief...

Once the choice of the dedicated arcade games player, these machines pioneered the use of sprites and quality sound. In their later configurations they remain attractive purchases for the wealth of existing software, but support is fading very rapidly and the outlook is grim.

Software

EXISTING BASE: Good but long in the tooth.

CURRENT RELEASES: Thin on the ground; mostly budget.

GAMES: Arcade range is of high quality. Adventures poor to middling

GRAPHICS: Some good programs on the market.

SOFTWARE FORMAT: tape or disk. Disks are quick, but tape software can be a real bargain.

MUSIC: Well supported in this area.

PROSPECTS: Not brilliant now that attention is focused on Atari STs.

Buylines

BEST BUY PRICE:
800XL shop around – machines are now scarce
65XE Dixons is offering the Starter Pack at £99.99
130XE generally as RRP

SECOND HAND AVAILABILITY: Quite a few around; look in the mags

MAINTENANCE: One year's guarantee. Return to dealer if faulty

The Best Software Shop in Town

MORE DISCOUNT
Mark Downs
Promotions
Special Deals

MORE SERVICE
Free Tape Head Alignment service
Demonstrations
Club Membership
Order by Phone

MORE CHOICE
Over 500 Titles in stock
Large selection of Discs
Amstrad 6128*PCW*PC
Atari ST*XE
Spectrum
Commodore Amiga*C16*C64
BBC*Electron
MSX
Full range of joysticks*Cables

ULTIMA
WHITE LION WALK GUILDFORD SURREY
TELEPHONE 0483-506939
31 HANOVER BUILDINGS SOUTHAMPTON
TELEPHONE 0703-39419
OPPOSITE MACDONALDS

Commodore Amiga

Models: Amiga 500, A1000, A2000

Package: keyboard, with built-in disk drive. A1000 is discontinued, so packaging will depend on different dealer policies.

Memory:

A500	512K
A1000	256K
A2000	1024K

Processor: Motorola 68000

Recommended Retail Price

A500	£499.99
A1000	none – discontinued
A2000	£1236.25

Disks

Format	3 1/2 inch
Capacity	880K formatted
Price	Around £3.00
Software	All on disk
Extra drives	Yes
Built-in	Yes

Performance
Noisy and surprisingly sluggish

Graphics

Resolution	640x200
Palette	4096
Colours	16 in high res 32 in low res 4096 in hold and modify

Display

TV	No but modulator available for A500 only at £24.99
Monitor output	SCART
Monitor supplied	No
Options	Commodore A1081 at £349.99

Performance

Sprites	8
Scrolling	Vertical, horizontal
Speed	Very fast with right software

Graphics co-processor allows sprites to be 're-used' under some circumstances and offers powerful windowing capabilities, while block image transferrer (blitter) speeds up large-scale graphics work enormously.

Sound

Sound chip	Commodore custom chip
Stereo output	Yes
MIDI	Not built-in. Third party interfaces available.
Channels	4

Performance
Built-in text to speech synthesis, 9 octaves, programmable waveforms, amplitude and frequency modulation

Hardware

KEYBOARD: 94 key, 10 function keys, numeric keypad, separate cursor cluster

JOYSTICK/MOUSE Mouse supplied as standard

PORTS: Two joystick/mouse • Audio output left and right • Extra disk drive • Serial (RS232, • Centronics parallel • RGB/video • Monochrome video • Expansion bus

Software

EXISTING BASE: Small in comparison to 8-bit machines

CURRENT RELEASES: Beginning to pick up

GAMES: Arcade products not yet up to the capabilities of the machine. Few adventures are available, but they are generally of a good quality.

GRAPHICS: Quality and range outstanding.

MUSIC: Potentially superb. Little MIDI support as yet.

SOFTWARE FORMAT: Disk only

SOFTWARE LOADING: A noisy process

PROSPECTS: Good, but A500 needs to establish a larger user-base before becoming a prime development machine.

Buylines

BEST BUY: Not at present sold below RRP, although it can be worth checking various dealers for special packs.

SECOND HAND AVAILABILITY: Limited as yet.

MAINTENANCE: Within guarantee should be returned to the dealer.

In brief...

Stunning specification. Despite initial uncertainty, software support now seems assured. Although overshadowed by the ST in the UK to date, overseas sales (particularly in US) are high. An excellent machine for those who can afford one.

CBS COMPUTERS

17 EVERSLEY ROAD BEXHILL E SUSSEX (0424) 221931

SPECIALIST COMPUTER DEALERS FOR ST & AMIGA

Atari 520STFM	£279.95	Phillips 8833 Med-Res Colour Monitor + Cable	£274.95
Atari 520STFM+ Phillips 8833 Colour	£549.95	Star NL10 Printer + Cable	£219.95
Cumana 1 Meg Drive	£134.95	PHONE FOR MORE	

Amiga A500 + Modulator + Paint + 3 Top Games	£479.95	Phillips 8833 Med-Res Colour Monitor + Cable	£274.95
Amiga A500 + 1081 Monitor + Paint + 3 Top Games	£749.95	Star NL10 Printer	£219.95
Cumana 1 Meg Drive	£134.95	SEGA Games Console	£99.95

AMIGA SOFTWARE

Games/Leisure		Guild of Thieves	16.50	Sinbad	19.95
Adventure Construction Set	19.95	Hacker II	16.50	Sky Fighter	10.00
Alien Strike	10.00	Hitchhikers Guide	19.95	Skyfox	13.50
Archon	19.95	Hollywood Poker	12.95	Spaceport	13.50
Archon II	19.95	Hunt for Red October	16.50	Space Ranger	7.95
Arena/Bratacca	12.95	Impact	10.00	Spellbreaker	12.95
Artic Fox	19.95	Infidel	12.95	Starcross	19.95
Balance of Power	19.95	Jewels of Darkness	13.50	Starglider	16.50
Barbarian	16.50	Kamplegruppe	19.95	Stationfall	19.95
Bards Tale	16.50	Karate (Eidersoft)	16.50	Super Huey	13.50
Borrowed Time	16.50	Karate Kid II	16.50	Surgeon	37.50
Brian Clough Football	16.50	Kings Quest III	12.95	Suspect	12.95
Bureaucracy	23.90	Kings Quest Triple Pack	16.50	Suspended	12.95
Challenger	7.95	Knight Orc	13.50	Terrorpods	16.50
Championship Baseball	12.95	Leather Goddesses	19.95	Ultima III	19.95
Championship Golf	12.95	Leviathan	13.50	Uninvited	19.95
Chessmaster 2000	16.50	Marble Madness	13.50	Vaders	7.95
Cruncher Factory	7.95	Mean 18 Golf	19.95	Winter Games	16.50
Deadline	12.95	Mindshadow	16.50	World Games	16.50
Defender of the Crown	19.95	Mission Elevator	13.50	Zork I	12.95
Deja Vu	19.95	Mouse Trap	10.00	Zork II	12.95
Diablo	13.50	Ninja Mission	7.95	Zork III	12.95
Dr Fruit	7.95	Ogre	16.50		
Faerytale Adventure	37.50	Pawn	16.50	**Utilities/Business**	
Final Trip	7.95	Phantasie III	16.50	Aegis Animator & Images	99.95
Firepower	16.50	Plundered Hearts	16.50	Deluxe Music Construction	49.95
Flight Simulator II	37.50	Plutos	10.00	Deluxe Paint II	49.95
Flight II Scenery Disk 7	16.95	Portal	19.95	Devpac	38.95
Feud	7.95	Q Ball	13.50	Digi Paint	37.50
GBA Basketball	12.95	Roadwar 2000	16.50	Instant Music	20.95
GFA Football	12.95	Roadwar Europa	16.50	Music Studio	12.95
Gold Runner	16.50	SDI	19.95	Pagesetter	99.95
Grand Slam (Tennis)	19.95	Shangai	12.95	Scribble II	69.95
		Silent Service	16.50		

ST SOFTWARE

Games/Leisure		Leaderboard Tournament	7.95	**Business/Utilities**	
3D Galax	13.50	Mercenary Compendium	16.50	Accountant (Sage)	129.95
10th Frame	16.50	Metrocross	16.50	Accountant Plus (Sage)	159.95
Airball	16.50	Mission Elevator	13.50	Advanced OCP Art Studio	16.50
Airball Construction Kit	10.00	Mortville Manor	16.50	Art Director	34.95
Alternate Reality	16.50	Nord and Bert	16.50	Assembler (Metacomco	34.95
Arctic Fox	16.50	Not a Penny More	13.50	Back Pack	34.95
Arkanoid	10.00	Pawn	16.50	CAD 3D	34.95
Backlash	13.50	Plundered Hearts	16.50	Cashlink Integrated Accounts	249.95
Balance of Power	19.95	Prohibition	13.50	Degas Elite	17.50
Barbarian	16.50	Road Runner	16.50	Devpac	32.95
Bards Tale	16.50	Roadwar Europa	16.50	Digi Drum	16.50
Basketball	12.95	Roadwar 2000	16.50	Fast Basic (Disk)	32.95
Bureaucracy	23.90	S.D.I	19.95	Fast Basic (ROM)	64.95
Borrowed Time	16.50	Sentinel	13.50	Film Director	41.95
Boulderdash Construction	16.50	Shanghai	12.95	First Word Plus	54.95
Chess (Psion)	16.50	Sidewalk	13.50	Fleet Street Publisher	84.95
Chessmaster 2000	16.50	Silent Service	16.50	GFA Basic	31.95
Chopper X	7.95	Silicon Dreams Trilogy	13.50	GFA Compiler	31.95
Defender of the Crown	19.95	Starglider	16.50	GFA Companion	23.95
Eagles Nest	13.50	Star Trek	13.50	GFA Draft	68.95
Extensor	13.50	Star Wars	13.50	K-Data	35.95
Flight Simulator II	35.50	Strike Force Harrier	16.50	K-Minstrel (Midi)	24.95
GFL American Football	16.50	Super Huey	13.50	K-Spread 2	56.50
Gauntlet	16.50	Supercycle	16.50	Lattice C (Metacomco)	68.95
Gold Runner	16.50	Tai Pan	13.50	Lisp (Metacomco)	114.95
Guild of Thieves	16.50	Terrorpods	16.50	Micro-Time Clock Card	29.95
Hitchhikers Guide	19.95	T.N.T	13.50	Music Studio	12.95
Hunt for Red October	16.50	Trackar	16.50	Pascal V.2 (Metacomco)	72.95
Impact	10.00	Trivial Pursuit	13.50	Pro Sound Designer	44.95
Indiana Jones	13.50	Winter Games	16.50	Publishing Partner	124.95
Karate Kid II	16.50	World Games	16.50	ST Replay	54.95
Knight Orc	13.50			Super Conductor	34.95
Leaderboard	16.50			Superbase Personal	67.95
				VIP Professional	174.95

ORDER BY PHONE
Tel (0424) 221931

VISA

Prices Inc VAT & FREE Delivery *Send Cheques or Visa/Access detail to*
CBS Computers, 17 Eversley Rd, Bexhill, E. Sussex TN40 1HT.
Most Orders despatched within 24 Hours, but allow maximum of 14 days

Commodore 64/128

Models: C64, 128, 128D

Package: C64 and 128 keyboard plus C2N tape recorder, plus accesories (according to individual dealers). C128D keyboard plus disk drive.

Memory: C64, 64K; **C128,** 128K; **C128D**, 128K

Processor: C64, 6510; **128/128D**, 8502 plus Z80 for use in CP/M mode

Recommended Retail Price: C64; £159.99-£179.99† **C128** £199.99 stand-alone; £229.99 with C2N; £249.99 with C2N + software **C128D** £399.99

† according to individual dealers' packages.

Disks

Two disk drives are commonly available – the C1541 and the more recent C1571.

Format	5.25 inch
Price	£1.00 (less in bulk)
Capacity	
1541	140K formatted
1571	340K formatted
Software	Most titles available on disk
Add on drives	Yes, including third party units with improved performance
Built-in	128D only

Performance
Commodore 1541 drive is notoriously slow and noisy; 1571 marks substantial improvement.

Graphics

Resolution	
C64	320x200

C128/128D: as 64 in 64 mode, plus 640x200 in 128 modes (80 column display)

Palette	16
Colours	8

Note Attribute system places minor limitations on number of colours displayable in any 8*8 pixel square.

Display TV	Yes
Monitor output	
64	Composite video
128/128D	RGB for 80 column display
Monitor supplied	No
Monitor options	
C1900M	£119.99 mono
C1901	£249.99 colour
C1084	£349.99 colour
	or suitable RGB/composite monitor

Performance

Sprites	8
Scrolling	vertical, horizontal
Speed	Good for scrolling and sprites, poor otherwise.

Hardware sprites and scrolling have proved both a blessing and a curse for Commodore graphics. They make certain tasks (particularly the programming of sprite-based shoot-em-ups) much simpler but more recent 3D software tends to run slowly (if at all).

Sound

Sound chip	8581 sound interface chip
Speaker quality	Output thru monitor
Stereo output	No
Channels	3
MIDI	No, but many third party interfaces available

Performance
Very sophisticated for the price. The Commodore 64 used to be most popular budget music computer for both MIDI and programming its on-board chip.

Hardware

KEYBOARD: Raised plastic keys with audible tactile feedback, plus function keys. Cursor key arrangement very awkward.

JOYSTICK/MOUSE: Provision for two standard joysticks. Mouse not supplied. Commodore 1350 mouse available, plus third party manufactured models.

PORTS: 2 joystick • expansion • cassette • non-standard serial • composite video (C64) RGB (128+128D) • TV • User port

In brief...

The 64 isan excellent games machine. The 128 and 128D can be configured for business use using the CP/M standard and giving access to a vast range of business and utility software. 64 is a particularly difficult machine to learn programming on due to outdated BASIC.

STORT SOFT

ATARI MAIL ORDER SPECIALISTS

INCREDIBLE LOW PRICES!

ALL DISKS CARRY A NO QUIBBLE REPLACEMENT GUARANTEE ARE CERTIFIED 100% ERROR FREE AND COME WITH LABELS, 5¼" ALSO HAVE SLEEVES AND WRITE PROTECTS. FLIP SIDED DISCS HAVE TWO INDEX HOLES AND TWO NOTCHES.

SPECIAL OFFER !!

25 SS 48TPI 5.25" DISCS & 100 CAP LOCKING DISC BOX	£16.00
50 SS 48TPI 5.25" DISCS & 100 CAP LOCKING DISC BOX	£25.00
100 SS 48TPI 5.25" DISCS & 100 CAP LOCKING DISC BOX	£39.95
25 DS 48TPI 5.25" DISCS & 100 CAP LOCKING DISC BOX	£17.00
50 DS 48TPI 5.25" DISCS & 100 CAP LOCKING DISC BOX	£26.50
100 DS 48TPI 5.25" DISCS & 100 CAP LOCKING DISC BOX	£42.00

5¼" DISCS FROM AS LITTLE AS 33 PENCE

BLANK 5 1/4" DISKS

DISK NOTCHER FREE WITH EACH 100 DISKS PURCHASED

UNBRANDED	TRIAL 10	25	50	100	10 in a plastic lib. case
SS48 TPI	£4.50	£9.00	£17.00	£33.00	£5.50
DS48 TPI	£5.50	£11.00	£19.00	£35.00	£6.50
DS96 TPI	£6.50	£13.00	£21.00	£37.00	£7.50
DS96 TPI FLIP SIDED	£7.00	£14.00	£22.00	£38.00	£8.00
MIMIC FLIP SIDED DS96 TPI	£8.95	£20.00	£38.00	£70.00	£9.95
MIMIC HIGH DENSITY 1.6meg	£23.00	£52.00	£100.00	£180.00	£24.00

LOCKING DISK BOXES

5¼" HOLDS 50	£7.95	5¼" HOLDS 100	£9.95
3½" HOLDS 40	£7.95	60/90 (HOLDS 60 3" or 90 3½")	£9.95

3.5" SPECIAL OFFERS

25 SS/DD 135 TPI(MF1DD) & 80 or 60/90 locking disc box	£35.00
50 SS/DD 135 TPI(MF1DD) & 80 or 60/90 locking disc box	£59.95
25 DS/DD 135 TPI(MF2DD) & 80 or 60/90 locking disc box	£39.95
50 DS/DD 135 TPI(MF2DD) & 80 or 60/90 locking disc box	£65.00

135tpi unbranded	10	25	50	100	500	10 into case
SS/DD (MF1DD)	11.95	29.00	57.00	98.00	—	12.95
DS/DD (MF2DD)	13.95	33.00	62.00	110.00	—	14.95

CUMANA DRIVES

ATARI ST 1 MEGABYTE	£139.00
AMIGA 1 MEGABYTE	£129.00

ATARI HARDWARE – BARGAIN PRICES

520 STFM £279.95

520 STM, SF354 (½ meg drive)	£279.95
520 STM, SF314 (1 meg drive)	£339.95
520 STM, SF354 & SM125 mono monitor	£374.95
520 STM, SF314 & SM 125	£434.95
1040 STF & SM125 mono monitor	£570.00
Mega ST (2 megabyte RAM & 1 meg drive)	£845.00
Mega ST (2 megabyte RAM & 1 meg drive) & SM125	£935.00
Mega ST (4 megabyte RAM & 1 meg drive)	£1095.00
Mega ST (4 megabyte RAM & 1 meg drive) & SM125	£1190.00

All Hardware comes with free dust covers!! All STs come with 5 public domain disks including CPM emulator and the arcade game Megaroids, 5 blank discs to get you going or choose 5 additional discs from our public domain library. Basic language disk and manuals.
520 STM ONLY comes with 1st Word word processor and spelling checker.

COMPUTER ACCESSORIES

5¼" DISK NOTCHER (Double your disk capacity on a single sided drive)	£3.95
DISK CLEANING KITS Liquid non-abrasive type – protect your valuable software	
5¼" DCK £3.95 3½" DCK	£4.95
ST/IBM/AMSTRAD 1512 TO CENTRONICS PRINTER LEAD (2 metres)	£8.95
ST TO RS232 MODEM LEAD (2 metres)	£8.95
BATTERY POWERED MINI-VAC – for keyboards, printers etc.	£9.95

Just write for more information. Cheques etc. payable to STORT SOFT (International orders remit in pounds Sterling by bank draft or international money order and send amount quoted which will be exclusive of VAT but include additional postage. Write for quote in any other currency)

ACCESS/MASTERCARD/EUROCARD/VISA accepted. CREDIT CARD ORDER LINE – 0279 89509
24 HOURS A DAY, 7 DAYS A WEEK – VAT & P.P. INC. NO HIDDEN EXTRAS – WHAT YOU SEE IS WHAT YOU PAY

18 CROWN CLOSE, SHEERING, BISHOP'S STORTFORD, HERTS CM22 7NX

(548)

Software

EXISTING BASE: Excellent. Only rivalled by the Spectrum, but in many cases, Commodore versions of programs are superior.

CURRENT RELEASES: Still pouring out.

GAMES: Arcade action second to none. Adventures - good selection.

GRAPHICS: Good selection – quality of graphics means that programs can be reasonably sophisticated.

MUSIC: Good wide range of sound editors, some samplers. Many MIDI utilities available.

SOFTWARE FORMAT: C64/128 – tape or disc from external dedicated tape deck (C2N) or disc drive. C128D – tape from C2N or disk from integral disk drive.

All Commodore machines require the Commodore C2N Tape Deck for loading tape-based software. Some third party interfaces are available to enable a normal domestic recorder to be used with the machines but this arrangement may not be as reliable.

SOFTWARE LOADING: Slow as always on cassette and disk loading not as fast as it should be due to slowness of dedicated drive. Most software produced with fast loader routines.

PROSPECTS: Supply will eventually slow, but Commodore games may well last longer than Spectrum, due to direct portability of games from US.

Buylines

BEST BUY PRICE: Old style C64s, dating back to before the redesign can be picked up for around £130-£150. Otherwise, with Commodore's policy of letting the dealers devise their own "bundles", it's a case of picking the one you like best.

SECOND HAND AVAILABILITY: Good for all models. Check small ads in various magazines.

MAINTENANCE: Under guarantee – take machine back to dealer. Should get straight replacement within 30 days of purchase (at dealers' discretion). Ex-guarantee – use independent repair company.

IBM & compatibles

Disks

Format	Mostly 5.25 inch some very new models use 3 .5 inch
Price:	Well under £1.00 for 5.25 around £3.00 for 3.5
Capacity:	Almost always 360K formatted
Software:	All on disk
Add-on drives	Yes

Built-in	Yes

Performance
Reliable and pretty fast; hard disks, of course, are even faster

Graphics

Graphics are not provided as standard on PC machines, although nowadays most all machine are sold with the necessary add-on boards already installed. There are three common standards, CGA, EGA, and Hercules:

CGA (Colour Graphics Adaptor)

Resolution	320x200 low res 640x200 medium res
Palette	none as suchbut three different colour schemes available in low res
Colours	4 in low res, mono in high res CGA is the most common PC display standard for colour systems.

EGA (Enhanced Graphics Adaptor)
Both CGA graphics modes, plus high resolution as follows

Resolution	640x350
Palette	64
Colours	16

Normally fitted as upgrade to basic machine, but comes as standard on some PCs (eg Amstrad PC1640).

Hercules

Resolution	720x348
Colours	Mono only Often built-in on mono PCs.

These are the three most common display standards, accounting between them for almost all cheap PCs currently in production, but other adaptors do exist. Buying second hand you may well encounter machines with unusual or text-only displays.

Display

TV	no
Monitor output	Normally RGB
Monitor supplied	With most packages
Options	Dedicated monitors are usually supplied or available for machine. Generally, any RGB should do.

Sound

Sound chip	None as such – need direct speaker modulation

Goel Computer Services

The Complete Computer Store

45, BOSTON ROAD, HANWELL, LONDON W7 3SH TELEPHONE: 01 579 8133

TITLE	ST	AMIGA	PRICE
Barbarian	24.95	24.95	17.50
Terrorpods	24.95	24.95	17.50
Deep Space	24.95	24.95	17.50
Arena/Bratacus	29.95	29.95	21.50
Pirates of Barbary Coast	12.95	-	9.00
Impact	14.95	14.95	11.00
Gary Linekers Soccer	19.99	-	14.00
Night Raider	19.99	-	14.00
Red October	24.95	24.95	17.50
Slap Fight	19.95	-	14.00
Army Moves	19.95	-	14.00
Gauntlet II	19.99	-	14.00
Captain America	19.99	-	14.00
Indiana Jones	19.99	-	14.00
Ogre	24.95	24.95	17.50
Addictaball	14.95	-	11.00
Grand Slam	29.95	29.95	21.50
Ego	19.95	-	14.00
Ego	-	24.95	17.50
F15 Strike Eagle	24.95	-	17.50
Rana Rama	19.95	-	14.00
Diablo	14.95	-	11.00
Diablo	-	19.95	14.00

TITLE	ST	AMIGA	PRICE
Balance of Power	29.95	29.95	21.50
Gnome Ranger	14.95	14.95	11.00
Backlash	19.95	19.95	14.00
Palace Barbarian	14.95	-	11.00
Tai Pan	19.95	-	14.00
Strike Force Harrier	24.95	-	21.50
World Games	24.99	24.99	17.50
Impact	14.95	14.95	11.00
SDI	29.95	29.95	21.50
Blood Valley	19.99	-	14.00
Alternative World Games	19.99	-	14.00
Winter Olympiad 88	19.49	19.49	13.60
Knightmare	14.99	-	11.00
3D Galax	19.99	-	14.00
Battleships	14.99	-	11.00
Battleships	-	19.99	14.00
Airball	24.95	-	17.50
Not a Penny More	19.95	-	14.00
Nord and Bert	24.99	-	17.50
Nord and Bert	-	29.99	21.50
Football Manager	19.95	19.95	14.00
Starring Charlie Chaplin	19.99	-	14.00
Defender of the Crown	24.95	24.95	17.50

TITLE	ST	AMIGA	PRICE
Goldrunner	24.95	24.95	17.50
Trivial Pursuit	19.95	-	14.00
Star Wars	19.95	-	14.00
Leviathan	14.95	-	11.00
Leviathan	-	19.99	14.00
Q Ball	-	19.99	14.00
Star Trek	19.95	-	14.00
Blue War	19.99	-	14.00
Pac Land	19.95	19.95	14.00
Pool	-	9.99	7.00
World Darts	-	9.99	7.00
Road Wars	19.95	-	14.00
Rockford	19.95	-	14.00
Annals of Rome	19.95	-	14.00
Bubble Bobble	19.95	-	14.00
Black Lamp	19.95	-	14.00
Golden Path	19.95	-	14.00
The Sentinel	19.95	-	14.00
U M S	24.95	24.95	17.50
Jinxter	24.95	24.95	17.50
Time and Magik	19.95	19.95	14.00
Knight Orc	19.95	19.95	14.00
Flying Shark	19.95	-	14.00

ACCESS AND VISA HOTLINE 01 579 6133 (24 HR ANSWERPHONE)

For foreign orders please add £1.00 per disk. Collect these game from our shops at **45, Boston Road, Hanwell, W7 and 1000, Uxbridge Road, Hayes, Middx. Tel 01 573 2726**. Please bring this advert to buy at these prices.

We also carry a large stock of games for Spectrum, Commodore, BBC, Electron, Amstrad, Atari and Apple and PC compatibles.

Send 40P (Refundable) for a list of current offers, stating which computer

Model: IBM's PC is the original. The many clones include Amstrad's PC 1512 and 1640 series, Tandy's 1000EX, Spectrum Bondwell 32, etc. The specifications given below will generally apply to most IBM compatibles unless particular riders are made. If you are thinking of buying a PC or compatible check all the salient details with dealers first.

Package: Depends on manufacturer. Amstrad supply a machine with monitor, with or without hard disk. You can buy the bare bones or the whole works.

Memory: usually 512K-640K

Processor: Intel 8086, 8088 or variants

Recommended Retail Price
From around £400.00 for the cheaper basic clones to £1500 for top-of-the-range clones (with hard disk, colour monitor etc.) IBM machines themselves are considerably more expensive.

Speaker quality Generally poor
Stereo output No
MIDI Third party interfaces available.

Performance

Not really a machine for the musician in view of the more recent competition from Atari and (at the uppper end of the market) Apple Macintosh.

Hardware

KEYBOARD: All models use raised plastic keys with audible tactile feedback and include function keys and separate numeric keypads. A wide variety of third-party keyboards is available.

JOYSTICK/MOUSE: Two different joystick standards exist, IBM (analogue) and Amstrad (Atari style - the norm for games playing). Most games support either IBM or both, but Amstrads can now be adapted to use IBM joystick. Newer models (eg. Amstrad) include mouse in package. Third party mice are available for mouseless PCs.

PORTS: Varies. Expect Centronics parallel, RS232, expansion port with most machines – but some of thes are optional.

Software

EXISTING BASE: Vast

CURRENT RELEASES: Still pouring out, with price levels dropping as well.

GAMES: Cheaper machines has meant that more and more games are being released on the PC – both arcade and adventure. CGA graphics standard use to be predominant, but an increasing number of EGA games with superior graphics are appearing. PC only recently perceived as a machine with games potential.

GRAPHICS: Many sophisticated packages for business presentation graphics; not too much for the artist.

In brief...

Superb value if you want an all-round machine, but the PC still betrays its business origins. Increasing number of games software releases, but few of these are of the coin-op arcade variety. Definitely not to be considered if entertainment is your first priority.

MUSIC: Fair selection of MIDI packages and interfaces, those these tend to be expensive.

PROSPECTS: Won't dwindle as long as there are PCs on desks

Buylines

BEST BUY PRICE: All-in-one packages – such as the Amstrad – represent good value, but if you know what you're doing even better bargains can be had from discount stores. If you don't know what you're doing go for a reputable brand.

SECOND HAND AVAILABILITY: PCs can often be picked up in auctions of computer and office goods, or through magazine adverts.

MAINTENANCE: Return to dealer if faulty, but a maintenance contract – often surprisingly cheap – can guarantee your piece of mind

WIGHT Computing Home Micro's

Atari 520 STFM	275.00
Amiga 500A includes Modulator	475.00
SEGA System	95.00
Commodore 1541 C disc drive includes 29 games	159.00
Commodore 64 C Sports Pack	165.35
Spectrum 128 plus 2	129.00
PCW 8256 includes Disk Box	344.00
PCW 9512 includes Disk Box	574.00
DMP 3160 (PC compatible printer)	199.00
Used Spectrum 48K plus 3 month warranty	60.00

Part Exchanges Welcome Mininmum £20
Phone for items not listed

Repairs

Spectrum Key board faults	8.00
Spectrum	22.00
Commodore 64 / C16 Plus 4 / Vic 20	26.50
Acorn Electron non ULA Faults	25.00
Recondition Vic 20 Modulators	17.50

Other Machines Please Phone

TV or Tape leads Spectrum	1.60

Large Range of leads & adaptors in stock

Commodore 64 PSU repairable	26.00
Spectrum Power supply unit	3.00

Due to the ***VAST STOCK*** of software we keep we are unable to list it, use the table below to work out the price to pay
(e.g Action Force Spect. rrp 7.95 our price 5.99)
Sega software deduct 2.00 from rrp

RRP	Our Price	RRP	Our Price
6.99	5.28	7.99	5.99
8.99	6.75	9.99	7.43
10.99	8.24	11.99	8.99
12.99	9.52	14.95	10.93
19.99	14.46	24.99	17.99
34.99	26.22	49.99	35.42

Barclay Card phone orders **0983 68978**
Or write to **W C H M,** 122 High Street, Ryde, Isle of Wight. PO33 2SU
All prices include VAT @ 15% postage & packing (UK)
Dealers for Time Works Software phone for prices
Software Bundles £10 for 10 tapes

MSX

Disks

Format: mostly 3.5 inch, a few 5.25 inch drives produced
Capacity 360K formatted (3.5")
Software mostly available on disk
Price of Blank Disks about £3.00.
Add-on drives yes
Built-in no
● **Performance** reasonable. MSX disk-drive units tend however to be very expensive.

Graphics

Resolution		256x192
Palette	MSX 1	16
	MSX 2	256
Colours	MSX 1	16
	MSX 2	256

Display
TV yes
Monitor output composite video
Monitor options Some manufacturers produced dedicated models.
Monitor supplied no
● **Performance**
Sprites yes
Scrolling no

Sound

Sound chip AY-3-8910
Speaker quality output through TV
Stereo output can be connected to external hi-fi system
MIDI third party interfaces available
Channels 3
● **Performance** good. Yamaha's CX5M was designed with musical applications foremost in mind.

In brief...

Main strength of MSX is in its implementation of arcade games.There is a very active user group that partially compensates for lack of industry support. Despite the attractive discounting of some models, the purchase of an MSX machine involves a high degree of risk with regard to future support and software releases.

Hardware

KEYBOARD: Generally standard raised plastic keys

JOYSTICK/MOUSE: Standard joystick port. Third party mice available.

PORTS: Expansion bus ● cartridge slot ● monitor output ● RF TV ● audio ● tape deck ● Centronics printer ● Disk drive

Software

EXISTING BASE: reasonable, twith a number of Japanese cartridges available. Stockists now very hard to find.

CURRENT RELEASES: very few. Mostly budget or imported.

PROSPECTS: poor. While there is no shortage of software worldwide, not all UK software houses include MSX in their plans.

GAMES: some good arcade titles well-implemented, but adventures are few and far between.

GRAPHICS: not much on the market

MUSIC: Yamaha's now discontinued CX5 was configured for musical applications; thus there are a number of packages available

SOFTWARE FORMAT: tape, disk or pre-programmed games cartridge with tape, predominant.

Buylines

MAINTENANCE: One year's guarantee. Return to dealer if faulty

BEST BUY PRICE: MSX 1 can be picked up for as little as £20.00 these days. MSX 2 is scarce, but should cost between £100-£200.

SECOND HAND AVAILABILITY: Check small ads in computer press

MSX is not a computer as such, but a standard design incorporated into a number of computers manufactured by a number of (mostly) Japanese companies.

Models:
MSX 1, launched 1985, no longer manufactured, some models still available at knock-down prices. **MSX 2** is current version but machines not widely available in UK.

Package: Generally keyboard only. Some MSX 1 models can be found with tape deck and software

Memory: MSX 1 – 32K-64K; MSX 2 – 128K

Processor: Zilog Z80

Recommended Retail Price None for MSX1, MSX2 – £150 plus.

LATEST SOFTWARE RELEASES

	CO	COD	SP	AM	AMD
World Class Leaderboard	6.95	10.95	6.25	6.95	10.95
Bubble Bobble	6.25	-	5.50	-	-
Six Pak Vol 2	6.95	10.95	6.95	6.95	10.95
Nebulus	6.25	-	5.50	-	-
Star Wars	6.95	-	6.95	-	-
Five Star Games III	-	-	6.95	-	-
Thundercats	-	-	5.50	-	-
Solid Gold	7.95	11.95	7.95	7.95	10.95
Game Set Match	10.95	14.95	10.95	10.95	14.95
Gunship	10.95	-	6.95	-	-
Big Four Vol 2	6.95	-	-	6.95	-
Freddy Hardest	6.25	9.95	5.50	6.25	10.95
Comp Hits 10 Vol 4	6.95	-	6.95	6.95	-
Hysteria	6.25	9.95	5.50	-	-
Tai Pan	6.25	10.95	5.50	-	-
Indiana Jones	6.95	10.95	6.25	-	-
Yogi Bear	6.95	-	-	-	-
California Games	6.95	10.95	-	-	-
IK+	6.95	10.95	-	-	-
Jack the Nipper 2	6.95	10.95	5.50	6.95	10.95

PLEASE NOTE: Unlike many mail order companies we do not advertise product before it is released.
For information on latest releases please telephone
0773 826830

JOYSTICKS

Cheetah 125+	£6.95
Cheetah Mach 1 +	£12.95
Euromax Professional Plus	£16.45
Konix Speedking	£10.95
Euromax Arcade	£15.95

AMIGA A500

£469.95

PRICE INCLUDES: Amiga A500: Amiga Basic: Amiga Workbench: Owners Handbook: Basic Manual The very first - disc : Delux Paint
PLUS FREE!!
GFL Championship Football
GFL Championship Baseball
GFL Championship Golf
EXTRA: EXTRA
Pay cash/cheque and we will give you a free modulator

ATARI 520 STFM

£279.95

PRICE INCLUDES: 520STFM: Mouse: UK Language Disc:
Owners Handbook, Basic Reference Guide
PLUS FREE!! Five Disks Full of Public Domain Software

ATARI ST SOFTWARE

Backlash	£14.95	Space Port	£14.95
Star Trek	£14.95	Defender/Crown	£22.95
Star Wars	£14.95	Ranarama	£14.95
Barbarian (PAL)	£11.45	F15 Strike Eagle	£17.95
Barbarian (PSG)	£17.95	Addictaball	£11.45
Impact	£11.45	Passengers/Wind	£17.95
Triv Pursuits	£14.95	Passengers/Wind 2	£14.95
Diablo	£11.45	TNT	£14.95
Ogre	£17.95	Phantasie 2	£17.95
Indiana Jones	£14.95	Phantasie 3	£17.95
Terrorpods	£17.95	Sentinel	£14.95
Knight Orc	£17.95	Eagles Nest	£14.95
Int Karate	£14.95	Balance/Power	£22.95
Leaderboard	£17.95	Guild/Thieves	£17.95
Starglider	£17.95	Pawn	£17.95
ST Karate	£17.95	Boulderdash	£17.95
Road Runner	£17.95	Colonial Conquest	£22.95
Auto Duel	£17.95	First Word Plus	£62.95
Advanced Art Studio	£17.95	Fast Basic Rom	£69.95

All latest releases come directly into stock: Please call for prices

AMIGA SOFTWARE

SCOOP PURCHASE ON INFOCOM ADVENTURES ALL TITLES AT £14.95 EACH
Planetfall, Zork 1, Zork II, Suspended, Spellbreaker, Infidel, Enchanter, Deadline, Seastalker, Cutthroats, Suspect, Trinity, Witness
HURRY!! Limited Stocks

MAIL-CENTA (DEPT AMI)

17, CAMPBELL STREET, BELPER, DERBY DE5 1AP. TELEPHONE 077382 6830

Please make Cheques/P.O. payable to MAIL-CENTA. TELEPHONE ORDERS USING ACCESS/VISA WELCOMED
Postage UK. Free over £5.00 (not books) Under £5.00 please add 50p; Strictly mail order
All orders despatched same day wherever possible

Sinclair Spectrum

Models: Plus (48K and 128K); Plus 2, Plus 3

Package: Keyboard and built-in tape/disk, plus joystick, selection of software.

Memory:

Plus	48K or 128K
Plus 2	128K
Plus 3	128K

Processor: Zilog Z80

Recommended Retail Price

Plus	none; shop around
Plus 2	£139.00
Plus 3	£199.00

Disks

(Plus 3 only)

Format	3 inch 'flippable'
Price	Around £3.00
Capacity	180K formatted per side
Software	Little as yet
Extra drives	Not yet available
Built-in	Yes

Performance

Generally fast and reliable. Some hitherto unforeseen compatibility problems may arise with commercial software – but they haven't surfaced yet.

Graphics

Resolution	256x192
Palette	8
Colours	8

Only 2 colours can be used within any 8x8 pixel square. Limits graphics potential.

Display

TV	Yes
Monitor output	RGB
Monitor supplied	No
Options	No dedicated Amstrad/Sinclair monitor, but any RGB suitable.

Performance

Sprites	None
Scrolling	None
Speed	Average

Despite clever programming, the Spectrum's display still compares unfavourably with both the Amstrad and Commodore machines.

Sound

Sound chip		AY-3-8912
Speaker quality	Plus	dreadful
	Plus 2 and 3	better
Channels		3
MIDI	Plus 48K	No
	Plus 2/3/128K	Yes

(non-standard socket built-in).

Performance

Poor – sound has never been the Spectrum's strong point, and few Spectrum software titles make much effort in this area.

In brief...

The Spectrum is primarily a games machine and should be bought only as such. It is unsuitable for business use, with low memory capacity and only a 32 column screen display. For productivity (ie, graphics and music type applications) use, it is not really sophisticated enough for serious projects. Utilities fair but serious users will want to upgrade before too long.

Hardware

KEYBOARD: The Spectrum Plus keyboards are made of hard plastic set into the casing, with a squidgy feel and a tendency to fall off if you hold the machine upside-down. The Plus 2/3 keyboard has raised hard plastic keys. Unlike the older model, it can be used more easily for word processing.

JOYSTICK/MOUSE: Non-standard on all models. Suitable interfaces widely available. Compatible joystick included in Plus 2 and 3 packaging. Third party mice available but mouse compatible software rare.

PORTS: 2 joystick • RS232/Midi • RGB monitor • Audio • Numeric keypad • Expansion/I/O • TV

Software

EXISTING BASE: Second to none.

CURRENT RELEASES: Most major software firms are continuing to bring out the majority of their titles on the Spectrum.

GAMES: A huge number of arcade titles ranging from abysmal to execellent. Wide range of adventures, many Quilled.

GRAPHICS: Fair selection, some of which squeezes better graphics performance from the machine than one would expect from the specification.

MUSIC: A couple of MIDI interfaces available, plus Cheetah Specdrum drum synth

SOFTWARE FORMAT: Plus – tape using external tape deck; Plus 2 – tape using built-in tape deck; Plus 3 – tape (using external recorder, not supplied) and disk using built-in disk drive.

N.B. Third party external disc drives are available for Plus and Plus 2 but no software standard has been established. Disk software for these models is therefore very scarce.

PROSPECTS: New releases will undoubtedly get fewer in number as the strength of the 16-bit machines (see below) grows. The user base will, however, last for a good couple of years yet.

Buylines

BEST BUY PRICE Plus can now be picked up cheaply as tno longer manufactured. Try to find a shop selling off old

COMPUTER MAGIC

LEADING COMPUTER SPECIALISTS IN EAST ANGLIA

MAJOR STOCKISTS OF

Acorn ATARI Nintendo Commodore SEGA

ST-Public DomainSoftware Offer:Now Only £5 per disk

All hardware is thoroughly tested and plugged before leaving the premises. *(Free Christmas gift wrap service available).*

We are pleased to announce the opening of our service dept from Jan 1st 1988, for repair, upgrade and maintenance to all products

For a 1st class service that can't be beaten, contact us now for all your requirements.

LEISTON
45 High Street
Leiston
Suffolk
IP16 4EL
(0728 830579)

IPSWICH
24 Crown Street
Ipswich
Suffolk
IP1 3LD
(0473 214868)

BURY-ST-EDMUNDS
51 St Andrews Street South
Bury-St-Edmunds
Suffolk
IP33 1SB
(0284 702305)

Access AMERICAN EXPRESS VISA

CHIPS COMPUTER CENTRE

ATARI ST SPECIALISTS

Buy the best MIDI computer on the market from the experts.
Full range of Music Software inc: Steinberg, Hybrid Arts, Dr. T etc. etc.
We buy, sell and part exchange all popular computer systems

Phone for low, low prices!

● AVAILABLE NOW Atari St MIDI sampler only £119.90 inc VAT – PHONE FOR DETAILS
● SAVE THE COST OF A MONITOR!
Buy an ATARI 1040 STF from us and we'll add an internal modulator (so you can use your TV instead) at no extra cost! – RING FOR DETAILS

CHIPS COMPUTER CENTRE
53 Rugby Road,
Worthing,
Sussex BN11 5NB

Phone:
(0903) 40509
(24 hrs)

stock at around £50. Curry's is offering Plus 2s at £129.99 in part exchange for an old computer.

SECOND HAND AVAILABILITY: Good. Check small ads in various magazines.
NB: The original Sinclair 48K model can still be found second-hand. If you're only interested in playing games and don't mind the rubbery keyboard, it could represent a good investment. Ensure that you get the 48K model – there is no outward way of distinguishing it from the (even earlier) 16K models, which are quite useless for running contemporary software.

MAINTENANCE: All Amstrad-badged Spectrums have a year's guarantee. If they go wrong within the guarantee period, take the machine back to the dealer which sold it to you. For pre-Amstrad Spectrums (Plus and Plus 128) bought as new and within guarantee period, contact Sinclair Research.

Nintendo

Nintendo Entertainment System

Package:
Standard version console, plus game controllers, plus 1 game (Super Mario Brothers)
Deluxe version – console, game controller, light gun, ROB robot, two games

Recommended Retail Price

Standard model	£99
Deluxe model	£159

Disks

A disk system is available in Japan, using proprietary non-standard Nintendo disks. The format provides greater memory capacity and hence enhanced versions of some software (e.g. Super Mario Bros II). The system is not available in the UK at present.

Graphics

Display	
TV	yes
Monitor options	not yet supported
Resolution	256x240
Palette	52

Sound

Channels	3

● **Performance** includes speech synthesis

Hardware

Ports: ● RF TV, video ● audio I game controller slots ● cartridge slot

MAINTENANCE: Manufacturer's guarantee.

Additions of light gun and robot make this a suitable machine for younger children.Not a true computer; recommended as games console only.

Software

EXISTING BASE: Huge (in Japan)

CURRENT RELEASES: Some

PROSPECTS: Good, but rate of import will depend on machine's popularity in UK. Because of the Yen to Pound conversion rate, Japanese software is likely to remain expensive.

GAMES: good range of arcade-type software. Some arcade adventures.

GRAPHICS: not as yet

MUSIC: none

SOFTWARE FORMAT:

cassette	no
cartridge	yes
smart card	no
disk	not yet available in UK

Buylines

BEST BUY PRICE: As RRP

SECOND HAND: Not as yet.

MAINTENANCE: Manufacturers guarantee and statutory rights if purchased new.

In brief...

A reasonable buy if a console is what you want. Interesting, too, because we may see more add-ons from Japan that give it extra power. However, at the moment, nearly all software is Japanes in origin and this is not to everyone's taste. It remains to be seen if it will receive any third-party support.

Sega Master System

Package: console, plus light gun, game controller and 1 game (Hang On)

Software format

cassette	no
cartridge	yes
smart card	yes

Recommended Retail Price £99

Disks

Not available.

Graphics

Resolution	256x192
Palette	64
Display	
TV	yes
Monitor options	no

Sound

Channels	3

● **Performance** Good sound effects on most games.

In brief...

Japanese software base not as good as Nintendo's, but what counts is how many titles reach UK. Mastertronic have given strong support to machine, so prospects are reasonable.

Hardware

PORTS: 2 game controllers ● cartridge slot
Robust casing. Not designed for future expansion. Not a true computer; recommended as games console only.

Software

EXISTING BASE: large

CURRENT RELEASES: well-supported by UK distributor Mastertronic

PROSPECTS: good if support by 'Tronic and parent company Sega continues

GAMES: wide selection of arcade titles, generally considered to be of high quality. No adventures. Bulk of releases currently confined to conversions of Sega coin-op games.

GRAPHICS: none

MUSIC: none

Buylines

BEST BUY PRICE: As RRP

MAINTENANCE:
One year's guarantee. Back to dealer if faulty.

Atari consoles

Disks

XE only: see Atari XL for details

Graphics

Resolution officially 320x192, 160x90 or 80x192 according to mode. Most software is produced on a res of 160x192

Palette	16
Display	
TV	yes
Monitor supplied	No
Options:	With Games System only

Hardware

KEYBOARD: Only as an extra on the XE Games System. Of pretty good quality

JOYSTICK/MOUSE: All machines take standard Atari joysticks.

Models: Atari 2600
Atari XE Video Game Console
Atari XE Games System

Package
2600: console plus software
XE GS: console, software
XE GS: console, joystick, additional keyboard, light gun, software (3 games)

Recommended Retail Price

2600	£49.99
XE GC	£79.99
XE GS	£119.99

PORTS: 2600 game controller, TV, cartridge slot ● VGC as 2600, with socket for extra keyboard ● VGC as above

Software

EXISTING BASE: Vast. Systems are compatible with all old Atari console games

CURRENT RELEASES: Software is still in production, but not in the same volume as a couple of years ago.

GAMES: Excellent arcade games abound; many adventures.

In brief...

The Atari range of consoles represents good value in terms of price and volume of software available. But note that the 2600 is strictly a *games* console while the VGC and VGS can both be upgraded to be used as computers.

GRAPHICS: very few

MUSIC: Hardly any

SOFTWARE FORMAT: VCS – cartridge only. VGC and VGS can use crtridge, tape, or disk (if connected)

PROSPECTS: Not much better than reasonable. Much depends on sales this Christmas.

Buylines

BEST BUY PRICE:2600 check out Dixon's for special offers. Console and System check for variations in packages listed above; otherwise, as RRP.

SECOND HAND AVAILABLITY: Good; look in computer magazines

MAINTENANCE: Manufacturers' guarantee. Any problems – return to dealer.

SOFTWARE BUYERS GUIDE

There's not much point in buying a computer without getting some software to run on it. And since this is the festive season we're presenting you with our selection of 50 games that should keep you warm with excitement this winter.

There's something here for everybody, from the megalomaniacal strategy of *Balance of Power* to the sheer arcade playability of *Bubble Bobble*.

Have fun!

AIRBALL

Microdeal ● Atari ST ● £24.95dk

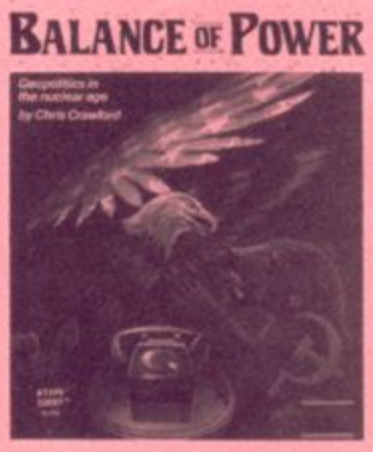
Multi-coloured three dimensional arcade adventure that owes something to the Ultimate style but is years ahead in terms of graphic detail and presentation. You, as the airball in question, must negotiate corridors and rooms full of various obstacles – all spelling instant death. An outstanding rendition of a popular genre.

ARKANOID

Imagine ● Spectrum £7.95cs ● C64 £8.95cs, £12.95dk ● Amstrad £8.95cs, £14.95dk ● Atari XL/XE £8.95cs ● Atari ST £14.95dk ● MSX £8.95cs ● IBM PC £19.95dk

Conversion from *Arkanoid* the coin-op, in its turn the best version of the classic *Breakout*. Simple in concept: the player controls a bat at the base of the screen, whizzing it left and right. The object is to keep a small ball in play, bouncing it off

the bat to destroy formations of bricks in the top half of the screen. Eliminate all the bricks and move on to the next of 33 screens. Clever extra features contribute to the addictiveness. As a faithful coin-op conversion, *Arkanoid* comes out top, but for a different slant on the same theme and some nifty music, try ASL's *Impact*, which also builds up the difficulty levels more gradually.



BALANCE OF POWER

Mindscape/Mirrorsoft ● Amiga £26.95dk ● Atari ST £26.95dk ● IBM PC £26.95dk ● Mac £26.95dk

Definitive strategy game for 16-bitters. The player takes the role of one of the superpowers, while either the computer or a friend takes the other. Then it's a case of trying to win friends and influence people on a global scale. This can be achieved in a number of ways, including supplying arms or financial aid to radical factions in the hope of toppling a government which is not receptive to the great American or Russian dream (depending on which side you're playing). It's complex, involving and it's difficult to play in ten minute sessions. Absorbing stuff that gives an insight into the devious world of geopolitics.

BOULDERDASH

Prism Leisure Corporation ● Spectrum £2.99cs ● C64 £2.99cs ● Amstrad £2.99cs

A game that has everything – instant addiction, long-term challenge, frenetic excitement as the clock ticks down and extremely tricky puzzles. You must collect jewels hidden in caverns, digging away earth and boulders to get at them. Boulders can drop and cause you serious damage, while the jewels are often hidden by seemingly impenetrable walls. Complex, but great fun. *Boulderdash* is a classic you can't afford to miss in its budget incarnation.

BOUNDER

Gremlin Graphics ● Spectrum £7.95cs ● C64 £9.95cs £12.95dk ● Amstrad £8.95cs £13.95dk ●

A great arcade bounce-em-up, and very addictive too. You guide a ball as it bounces from one platform to another, high above the vertically scrolling landscape. Land on marked squares and you can stay aloft longer or gain a mystery bonus. Fill in a gap or hit one of the game's many nasties, however, and

you'll lose a life. Bonus bouncing sections at the end of each level help vary the pace, and those tough gaps really keep you coming back for more. Bright, witty graphics, great music – and it's so playable.

BUBBLE BOBBLE

Firebird ● Spectrum £7.95cs ● C64 £8.95cs £12.95dk ● Amstrad £8.95cs £14.95dk ● Atari ST £19.95dk

Playability is the essence of this two-player coin-op conversion. You and a friend play bubble-blowing dinosaurs, travelling through 100 maze-and-platform screens, fighting off the "bullies" by encapsulating them in your bubbles to turn them into juicy fruit. More firepower

BYTEBACK

THE SPECIALIST

BEST PRICES *FASTEST* DELIVERY!

GAMES	ONLY		ONLY
Mission Elevator	13.95	Feud	6.95
Firepower	16.95	Leviathon	13.95
Space Ranger	6.95	Ninja Mission	6.95
Space Battle	6.95	Phalanx	6.95
Demolition	6.95	Cruncher Factory	6.95
Challenger	6.95	Dr. Fruit	6.95
Final Trip	6.95	Vader	6.95
Earl Weaver Baseball	16.95	Marble Madness	20.95
Arctic Fox	13.95	Skyfox	10.45
Archon I & II (2 pack)	13.95	Chessmaster 2000	16.95
Goldrunner	16.95	Starglider	16.95
Swooper	13.95	Amiga Karate	13.95
Barbarian	16.95	Terrorpods	16.95
Sky Fighter	10.45	Super Huey	13.95
Karate Kid II	16.95	Hollywood Poker	13.95
Flight Simulator 2	34.95	Silent Service	16.95
Basketball	16.95	GFL Football	16.95
Shanghai	16.95	Winter Games	16.95
World Games	16.95	Leaderboard	16.95

ADVENTURE AND STRATEGY	ONLY		ONLY
Bards Tale	16.95	Faery Tale	34.95
King of Chicago	20.95	Sinbad	20.95
Kings Quest III	20.95	Seven Cities of Gold	10.45
Defender of the Crown	20.95	Deja Vu	20.95
Uninvited	20.95	Balance of Power	20.95
SDI	20.95	The Pawn	16.95
Guild of Thieves	16.95	Mindshadow	16.95
Borrowed Time	16.95	Tass Times in Tone Town	16.95
Portal	24.95	Hacker	16.95
Hacker 2	16.95	Deadline	20.95
Enchanter	20.95	Moonmist	24.95
Spellbreaker	20.95	Leather Goddesses	20.95
Hitchhikers Guide	20.95	Hollywood Hijinx	20.95
Sorcerer	20.95	Bureaucracy	20.95
Kings Quest 3 Pack! (Kings Quest I, II and III)			18.50

ART AND MUSIC	ONLY		ONLY
Instant Music	18.50	Aegis Animator + Images	96.00
Aegis Images	39.00	Aegis Impact	79.00
Aegis Draw plus	239.00	Aegis Art Pack 1	36.00
Aegis Sonix	64.00	Aegis Audiomaster	96.00
Deluxe Paint 2	52.50	Deluxe Print	18.50
Deluxe Music Con. Set	52.50	Deluxe Video	89.00
Music Studio	26.50	Paintworks	26.50

UTILITIES AND BUSINESS	ONLY		ONLY
MiAmiga Ledger	79.00	Scribble 2	79.00
Pagesetter	119.00	Laserscript	36.00
Goldspell	36.00	SuperBase Personal	79.00

LANGUAGES	ONLY		ONLY
MCC Pascal	71.00	Lattice C	127.00
Cambridge Lisp	119.00	MCC Toolkit	31.00
MCC Assembler	52.50	K-Seka	64.00
Modula 2 Standard	79.00	Modula 2 Developers	119.00

HARDWARE	ONLY		ONLY
Locking Disk Box (80)	12.00	Furry Mouse Cover	7.00
Locking Disk Box (40)	9.00	Mouse Mat	9.00
3.5" Disks DS/DD (x10)	15.00	Keyboard cover	8.00
Arcade Microswitch Joystick	17.00	Quickshot Turbo	13.00
Joystick/Mouse extension	4.95	Quickshot II	8.00

All Prices include VAT and FIRST CLASS POST
All Stock Items sent by RETURN OF POST
Telephone (0636) 79097 for 24 HOUR SERVICE!

VISA

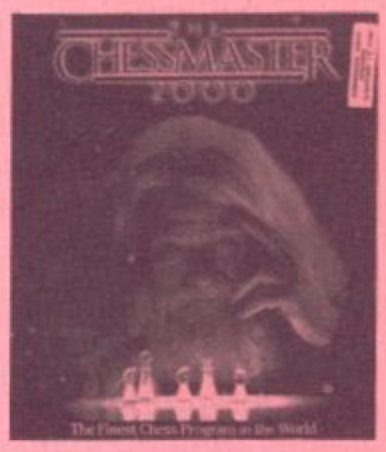
BYTEBACK Dept. Ace, 6 MUMBY CLOSE, NEWARK, NOTTS NG24 1JE

and various bonuses await as you reach the more dificult later screens. Enormously good fun, if a little on the cutesy side. Can also be played as one player against the computer.

CHESS MASTER 2000

Electronic Arts ● C64 £9.95cs £14.95dk● Amiga £24.95dk ● Atari ST £24.95dk ● IBM PC £24.95dk

Strongest chess game on the Amiga, with excellent graphics, 2D or 3D viewpoint, 12 levels of difficulty and all the playing options you could wish for. Plus some fairly nifty speech synthesis.



COLOSSUS CHESS 4

CDS ● Spectrum £9.95cs● C64 £9.95cs £14.95dk ● Amstrad £9.95cs £13.95dk ● Atari XL/XE £9.95cs £14.95dk

Best bet for 8-bit machine owners, with choice of 2D or 3D view, umpteen levels of difficulty, and myriad options which enable you to play, watch, work out chess problems, etc against a fine computer opponent.

DECATHLON

Firebird ● Spectrum ● £1.99cs ● C64 £1.99cs ● Amstrad £1.99cs

Exhausting but exhilarating, *Decathlon* is the supreme joystick-waggling test as you run, jump and throw your way to a gold medal and world records. Two-player option provides you with competition and at the price it's unbeatable.

ELITE

Firebird ● Spectrum £14.95cs● C64 £14.95cs £17.95dk ● Amstrad £12.95cs £14.95dk ● BBC £12.95cs £14.95dk (available from Superior Software)

Still the best space trading game, *Elite* set a standard for other companies to follow. One of the first space games to use vector graphics, it's a shooting and trading effort set across several galaxies, with plenty of variety to the gameplay. You can trade legal goods in (relatively) safe systems, or run the gauntlet of pirates in the galaxies' danger spots with your hold full of contraband. Either way there's a nice line in zero-G dogfighting, and as big a task as you'll find anywhere.

EXOLON

Hewson ● Spectrum £7.95cs ● C64 £8.95cs £12.95dk ● Amstrad £8.95cs £14.95dk

Graphically superb horizontally scrolling shoot-em-up in which you run, duck and jump your way along a planet's surface blasting away at alien defences. A gun and a missile launcher are used to blast the foes, but if things are still too tough then you can grab an exoskeleton for extra protection and fire power.

FLIGHT SIMULATOR 2

Sub-Logic ● Atari ST £49.95dk ● Amiga £49.95d ● IBM PC £49.95dk

The venerable godfather of flight simulations, *Flight Sim II* is the standard by which all others are judged. Although it spent a zillion weeks on top of the US charts, it's difficult to get hold of in the UK. If you have the technology, this is an essential purchase.

HEAD OVER HEELS

Ocean ● Spectrum £7.95cs ● C64 £8.95cs £12.95dk● Amstrad £8.95cs £14.95dk ● MSX £8.95cs ● IBM PC £19.95dk

3D exploration reaches its peak with this huge intricate masterpiece. You play two characters – Head and Heels – as you search for the crowns that will free the galaxy. The puzzles can get very difficult indeed, and you'll often have to split Head and Heels up to use their different capabilities. The game's 300 locations

are wittily drawn, and the animation is excellent throughout. A real classic.

HIGHWAY ENCOUNTER

Vortex (available on *The Best of 3D* compilation from US Gold) ● Spectrum £8.99cs ● Amstrad £8.99cs

Each game in this compilation is an excellent example of Vortex's 3D animation and tough gameplay, but *Highway Encounter* stands out in both departments, as you plot your route along said highway fighting off threats from a mutant tribe of dustbins.

I, BALL

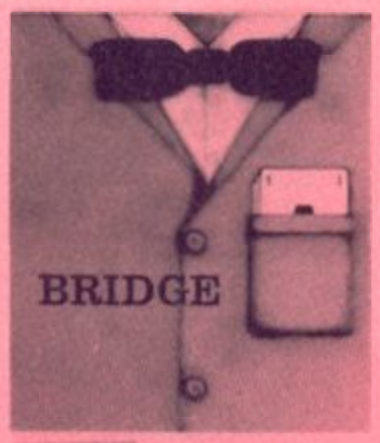
Firebird ● Spectrum £1.99cs ● C64 £1.99cs

A vertically scrolling shoot-em-up in which your mission is to rescue your pals who have been kidnapped by that embodiment of evil, Terry Ball. As a ball yourself, armed with a small front-firing gun, saving your friends could prove tough but there are loads of extra weapons you can pick up on the way to help, such as smart bombs or the awesome Rainbow Ripple laser, which as every good ball knows is not to be trifled with.

INFOGRAMES' BRIDGE

Infogrames ● Amstrad £12.95cs £15.95dk ● MSX £12.95cs

Graphically the best of all contract bridge simulations, with large playing cards depicted against a suitably green baize background. Plays a good game (for a computer, which after all is a bit short in the imagination and flair department), and features a wide range of options and bidding conventions which you can toggle on and off according to your style.



KNIGHT LORE

Ricochet ● Spectrum ● £1.99cs ● Amstrad £1.99cs ● BBC £1.99cs

Classic mouldbreaker from Ultimate that set the standard for 3D games for years afterwards – and the first to use mono graphics on the Spectrum to avoid attribute clash (it's more colourful on other versions). The result is beautifully detailed screens, arcade adventure exploration on a grand scale, tough visual puzzles and a mammoth quest. The programming techniques have been improved on since, but *Knight Lore* is still

an essential part of everyone's collection, and at a budget price, you have no excuse...

LAST NINJA

System 3 ● Spectrum £9.99cs ● C64 £9.99cs £14.99dk ● Amstrad £9.99cs £14.99dk ● Atari ST £19.99dk

One of the most recent martial arts type games, and one of the best. Superb graphics combine with complex manoeuvres to produce top quality kicks and punches against a wide variety of opponents met on your travels through the scrolling landscape.

LEADERBOARD

Access/US Gold ● Spectrum £8.99 ● C64 £9.99cs £14.99dk ● Amstrad £9.99cs £14.99dk ● Atari ST £19.99dk

If you only buy one golf simulation for your collection, make sure it's *Leaderboard*. It's head and shoulders above everything else on the playability and realism stakes, easy to get into, delightful graphics, and some wicked courses. Once you've mastered the courses on the original version, tackle *Tournament Leaderboard* and then *World Class*

Your Atari ST specialist

Evesham Micros

ALL PRICES VAT & DELIVERY INCLUSIVE

ATARI

520 STFM *GOOD AVAILABILITY*

Only £279.00

Evesham Micros 1MEG STFM
520STFM with 1MEG memory upgrade installed £338.00

1040STF	£469.00
1040STF+SM125 mono.	£569.00
MEGA ST2 (with SM125 & blitter)	£899.00
MEGA ST4 (" " " ")	£1179.00
SM125 mono monitor	£134.00
SC1224 colour monitor.	£379.00
SLM204 laser printer	£1199.00
Philips CM8833 colour monitor c/w ST cable	£279.00
Philips CM8852 as above higher res.	£319.00

£10.00 off Philips monitors when purchased with an ST.

All ST prices include: mouse etc. PLUS 5 disks full of P.D. software including demos, utility, wordpro & game

3.5" disks 10..... £11.95 in 10 cap plastic case £13.95
25..... £27.95 in 40 cap plastic case £34.95
Fully guaranteed double sided media.

STFM MEMORY UPGRADE KIT
This kit will allow you to upgrade the memory of the 520 STFM (NOT STM) to 1024K. Fitting requires soldering ability and patience.
ONLY £59.00

ProCopy Version 1.5
PROTECT YOUR SOFTWARE INVESTMENT

ProCopy ST
For all Atari ST models
- Backup most protected software! (for archival purposes only)
- Most powerful copier of it's type, even copies itself!
- Supports one or two single- or double-sided drives!
- Uses all available memory!

Proco Products best selling copy program.
Regular updates available to handle latest protection schemes.

Only £34.95

PRINTERS PRICES INCLUDE VAT, DELIVERY & CABLE

We use and recommend Star printers, they offer the best combination of features, print quality, reliability and value for money. Sheet feeders in stock.

Star NL-10 New low price (state cartridge type)	£199.00
••SPECIAL: 2 spare ribbons value £13.90 *FREE* with NL-10••	
Star NX-15 Wide carriage version of NL-10	£319.00
Star NB24-10 Brilliant 24 pin printer 216cps 72cps NLQ	£479.00
Star NB24-15 Wide carriage 24 pin	£599.00
PANASONIC KXP-1081 Best sub £200.00 model	£179.00
NEW..Amstrad LQ3500, 24 pin. In stock now..£349.00..NEW	

Many other models in stock at competitive prices

All prices include VAT/delivery. Next day delivery £5.00 extra.

How to order

Send cheque, P.O. or ACCESS/VISA details
By phone with ACCESS/VISA details
Govt., Educational or PLC orders accepted
Same day despatch whenever possible
Callers welcome, open 6 days 9.30-5.30
All goods subject to availability E.&O.E.
TELEX: 333294 FAX: 0386 765354

Evesham Micros
63 BRIDGE STREET
EVESHAM
WORCS WR11 4SF
Tel: 0386 765500

Also at: 1756 Pershore Rd., Cotteridge, Birmingham B30 3BH Tel: 021 458 4564

AMIGA A500 NOW IN STOCK FOR ONLY £429

AMIGA PACK 1 INCLUDES
Amiga A500 ★ Deluxe Paint ★ Workbench 1.2 ★ Very First Steps Tutorial
£429.95

AMIGA PACK 2 INCLUDES
Amiga A500 + 1901 Colour Monitor ★ Deluxe Paint ★ Workbench 1.2 ★ Very First Steps Tutorial
£679.95

MORE PACKS AVAILABLE, PHONE FOR DETAILS.

AMIGA HARDWARE

	RRP	OUR
Commodore PC	—	£499.00
Amiga 2000	£1259.25	£995.00
XT Bridge Card (Amiga 2000)	£573.85	£449.95
Internal 1 Meg Disc Drive (Amiga 2000)	£228.85	£199.95
1010 External Disc Drive	£286.85	£259.95
Amiga Internal 1 Meg Upgrade	£113.85	£99.95
Triangle 1 Meg Disc Drive	—	£139.95
Cumana 1 Meg Disc Drive	—	£139.95
Amiga (2000) 2 Meg RAM expansion	£458.85	£359.95
Commodore 64 C pack		£159.00

Now in stock SEGA Master Systems £99, + software now in stock

AMIGA SOFTWARE

King's Quest (3 pack)	£24.95	Area/Bratticus	£29.95
Barbarian	£18.75	Diablo	£14.95
Gold Runner	£18.75	Alien Strike	£11.50
Terrapods	£18.75	Mouse Trap	£11.50
Ogre	£18.75	Plutos	£11.50
Archon/tonl	£17.95	Road War 2000	£18.75
Flight Sim II	£37.95	Portal	£29.95
Deluxe Paint II	£57.95	Hunt For Red October	£18.75
Marble Madness	£14.95	Skyfighter	£12.95
Instant Music	£18.75	Dr. Fruit	£8.95
Sinbad	£29.95	Invaders	£8.95
Super Huey	£14.95	Pseud	£8.95
Bards Tale	£18.75	Space Ranger	£8.95
Chess Master 2000	£18.75	The Final Trip	£8.95
Earl Weaver Baseball	£18.75	Grand Slam Tennis	£18.75
Seven Cities of Gold	£11.50	King's Quest Triple Pack	£19.95
Mean 18 Golf	£18.75	King's Quest 1/2/3	£8.95
Deep Space	£19.95		

BUSINESS SOFTWARE

Word Perfect £239.95
Super Base £79.95

More Software than we can show please ring.

We are a Commodore appointed dealer
All trade enquiries welcome

BLANK DISCS

10	20	50	100
£10.95	£21.50	£49.95	£97.00

Trade enquiries welcome

Lockable disc boxes 3.5" holds 80 .....£9.95

Spend over £50 on Software and get a Free Calculator

VISA **SOUND N VISION**

11 Silk St, Leigh, Lancs WN7 1AW.
Phone now for details – Tel: (0942) 673689
Cheques and P/Orders payable to: Sound N Vision P.&P./VAT INCLUDED
Visitors welcome in showroom. Send S.A.E. for price list.
(534)

Leaderboard (based on real courses, including St Andrews, and also containing the Gauntlet Country Club, a course devised by Access to be as difficult as possible).

LIGHTFORCE

FTL ● Spectrum £7.95cs ● C64 £8.95cs £13.95dk ● Amstrad £8.95cs £13.95dk

Fast vertically scrolling shoot-em-up, which broke some new ground on the Spectrum by using plenty of colours without an attribute clash in sight. Basically, it's a question of shooting the descending aliens and destroying the installations. Varied aliens attacking in different formations make this a demanding game which can easily become a habit.

LORDS OF MIDNIGHT

Beyond ● Spectrum £9.95 cs ● C64 £9.95cs £11.95dk

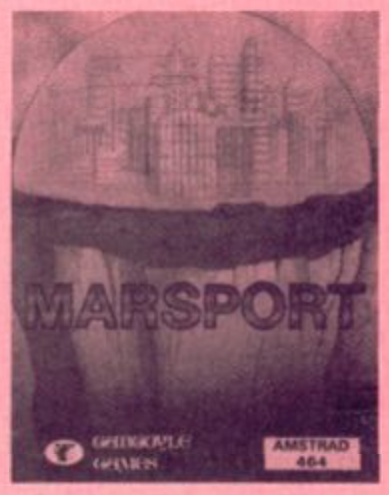
A fantasy wargame which can be played either as a wargame or as a graphic adventure. The best way to play the game is to combine the two elements and play as one epic. The wargame aspect is the most testing and enjoyable, involving the player controlling four characters independently. One of the most involving and atmospheric games you

could hope to play, and unusual in its use of 'landscaping' – a method of presenting a view of the terrain in all directions, giving the player 32,000 possible panoramic displays.

MAGIC KNIGHT TRILOGY

Mastertronic ● Knight tyme Spectrum £2.99 cs Amstrad £2.99cs ● Spellbound Spectrum £2.99 cs Amstrad £2.99 cs C64 £2.99 cs ● Stormbringer Spectrum £2.99 cs Amstrad £2.99 cs

This trilogy is a series of menu-driven arcade adventures which, as well as all the expected running and jumping, have a complex system of interaction between characters. In *Spellbound* you must rescue Gimbal the Wizard from the fear-



some Castle of Karn; in *Knight Tyme* you have to find a way back in time after being catapulted into the 25th century, while in *Stormbringer*, the final part, we find that the magic knight has been split in two, one part good, the other evil. You can't kill yourself, so the only solution is to merge the two halves. But how? Lots of action, plenty of thought and good graphics make all three winners.

MARSPORT

Gargoyle Games ● Spectrum £9.95cs ● Amstrad £9.95cs £13.95dk

Take the part of Commander John Marsh, Earth's last hope in the struggle against the Sept in this arcade adventure packed with puzzles to solve and aliens to zap. The 3D animation is great as the main character wanders around the enormous space station where the game is set. Like the earlier Gargoyle games, *Tir Na Nog* and *Dun Darach*, this is good, thought-provoking stuff.

MATCH DAY

Ocean ● Spectrum £7.95cs ● C64 £8.95cs £13.95dk

Definitely *the* football game on micros; magnificent animation, great gameplay, vicious and skilful computer opponents. A possible rival to Match Day looms on the horizon, however – *Match Day 2* is soon due for release on Commodore and Amstrad CPC machines.

MERCENARY

Novagen ● C64 £9.95cs £12.95dk ● Amstrad £9.95cs £19.95dk

Fly around a city of strange buildings and explore the maze of underground passages all presented to you in fast, smooth vector graphics. Your goal is to escape from war-torn Targ by buying, stealing or earning an interstellar ship. Join forces with either of the warring Paliars or Mechanoids or play them off against each other.

PITSTOP 2

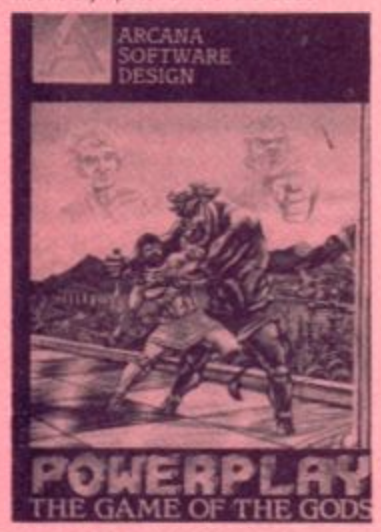
Epyx/US Gold ● Available only on Epyx Epics compilation ● C64 £9.95cs £14.95dk ● IBM PC £29.95dk (in compilation with Winter Games and Summer Games 2)

Thrilling racing game where the escreen is split into two and you can race the computer or a friend. Lots of different Grand Prix circuits, tyre blow-outs and of course the all-important pitstops guarantee to give you hand cramp and your brain a real racing treat.

POWERPLAY

Arcana ● Amstrad £8.95cs £14.95dk ● C64 £8.95cs £14.95dk

If you want to try out your general knowledge, we reckon you'd be better off with this original and challenging combination of strategy game and quiz than with the admittedly monster-selling *Trivial Pursuit*. Graphically very pretty in its setting on Mount Olympus, home of the Gods.



QUEDEX

Thalamus ● C64 £9.99cs £14.99dk

In this impressively challenging game you must steer a metallic ball through ten different screens of mazes, bonuses and obstacles, all within a set time limit. This simple game concept has a host of added gameplay features which make it particularly pleasing: you can carry over unused time to the next screen, so take on easy screens first and shore up plenty of time to tackle the more fiendish ones; and you can tackle the different screens, or 'planes' in any order you wish. Excellent graphics and the play is utterly absorbing.

REVS PLUS

C64 £9.95cs £12.95dk ● BBC £12.95cs £14.95dk (available from Superior Software)

Revs was one of the first racing games to portray real circuits, starting with Brands Hatch; *Revs Plus* adds five more: Silverstone, Snetterton, Nurburgring, Donington Park and Oulton Park. Features high quality graphics, superb sound effects and a complex set of controls for your car which adds to the realism of the game. Weaving around the other racers and negotiating the corners, particularly the notorious chicane, call for practice and precision control.

SCRABBLE

Leisure Genius ● Spectrum £9.95cs ● C64 £12.95cs £14.95dk ● Amstrad £9.95cs £14.95dk ● IBM PC £24.95dk

The hugely popular word game translated very successfully on to the micro. Fast, excellent display, and a surprisingly large vocabulary (even if it does include some strange looking words on occasions). Will give even strong humans a tough game at the higher levels.

SENTINEL

Firebird ● Spectrum £9.95cs ● C64 £9.95cs £14.95d ● Amstrad £9.95cs £14.95dk ● Atari ST £19.95dk

Bizarre and compelling strategy game game played over the chequered surface of a planet dominated by the Sentinel. Fundamentally you have to absorb energy while trying to stop the Sentinel from absorbing yours. A clear brain and fast trigger finger are both necessary in this very original and large – 10,000 possible landscapes – game.

SHADOWFIRE

Beyond ● Spectrum £9.95 ● C64 £9.95cs £11.95dk ● Amstrad £9.95cs £14.95dk

This strategy game was one of the first to be icon-driven, and is still one of the best. The player takes charge of six characters collectively known as the Enigma Force, and uses them in an attempt to rescue the ambassador Kryxix, who is ebing held captive by that scoundrel General Zoff. Each character is manipulated separately using the icons from various

TURTLESOFT

AMIGA HARDWARE	RRP	OUR PRICE
Amiga A500 Keyboard/Mouse/Drive	499.99	449.95
Amiga A500 + A520 Modulator	524.98	469.95
Amiga A500 + Philips 8533 Colour Monitor	819.94	709.95
Amiga A500 + Philips 8833 Stereo Colour Monitor	829.94	719.95
Amiga A500 + Cuman CAX354 Second 3.5in Drive	649.94	559.95
Amiga A500 + Cuman 3.5 in Drive + Philips 8533 Colour Monitor	969.89	819.95
Amiga A500 + Cuman 3.5 in Drive + Philips 8833 Colour Monitor	979.89	829.95

★★ All Amiga A500 come with a FREE Sports Bag, GFL Football, Baseball & Golf ★★

★★ As well as Delux Paint, Basic, Workbench, Utilities, Manuals and Tutorial ★★

AMIGA PERIPHERALS	RRP	OUR PRICE
Amiga A1010 Second 3.5in 880k Disc Drive (A1000 or A500)	249.95	209.95
Cumana CAX354 880k Drive 3.5in (A100 or A500)	149.95	119.95
Amiga A1084 Colour Monitor (NEW MODEL)	379.95	339.95
Philips CM8833 Stereo Colour Monitor + Lead	329.95	279.95
Philips CM8533 Colour Monitor + Lead	319.95	269.95
Philips CM8852 Colour Monitor + Lead	349.95	299.95
Amiga A521 Modulator (To Connect to TV)	24.99	22.99
Amiga A501 512k-1040k RAM upgrade + clock	113.85	99.95
Panasonic KXP-1081 Printer, Epson Codes. NLQ. 120CPS + lead	279.95	174.99
MP165 Printer, Epson Compatible. NLQ. Draft 165CPS + lead	263.35	199.99
MP135 Printer, Epson Compatible. NLQ. Draft 135CPS + lead	194.35	159.99
MP200 80 col. Printer, 200CPS, Epson Codes. NLQ 40CPS + lead	343.85	294.99
MP201 136 col. Printer, 200CPS. Epson Codes. NLQ 40CPS + lead	401.35	329.95
MP480 80 col. Printer. Epson Codes. NLQ 480CPS + lead	424.35	339.95
MP26 132 column Daisywheel Printer, 26CPS + lead	299.95	249.95
MP40 158 Column Daisywheel Printer, 40CPS + lead	435.85	349.95
Midi Master Interface (State A1000 or A500)	34.99	29.95
DSDD 3.5in Discs + Library Case (10) – LOW LOW PRICE	22.95	14.95
Quality Branded 3.5in DSDD Discs (10) – LOW LOW PRICE	27.95	18.95

SPECIALS (Limited Stock)	RRP	OUR PRICE
Amiga A1081 colour monitor	349.95	309.95
Commodore C128 + Tape Recorder + j/stick + software	269.99	229.95
Commodore 64C Sports Pack (64C, 1530, j/s, Sports Bag, 5 Games	199.99	169.95
Commodore 64C Computer only	169.99	139.95
Commodore 1530-1 Tape Recorder	44.95	34.95
Commodore 1541C New Disc Drive + FREE GEOS + 10 discs	199.99	169.95
Commodore 64 Mouse & Software (NEOS)	24.99	19.95

AMIGA 500/1000 GAMES	RRP	OUR PRICE
Adventure Construction Kit	29.95	20.95
American Football	24.95	16.95
Amiga Karate	19.95	13.95
Artic Fox	19.95	13.95
Arena/Brataccus Pack	34.95	23.95
Balance of Power	29.95	20.95
Barbarian	24.95	16.95
Bards Tale	24.95	16.95
Baseball	24.99	16.95
Basketball	24.99	16.95
Bureaucracy	34.99	23.95
Chessmaster 2000	24.95	16.95
Crunch Factory	9.99	6.99
Deep Space	34.95	23.95
Defender of Crown	29.95	20.95
Deja Vu	29.95	20.95
Demolition	9.99	6.99
Diablo	19.95	13.95
DR Fruit	9.99	6.99
Faerytale Adventure	49.95	37.95
The Final Trip	9.99	6.99
Flight Simulator II	49.95	37.95
Flight Sim. Scenery Disc	24.95	16.95
Fued	9.99	6.99
Goldrunner	24.95	16.95
Golf	34.95	23.95
Guild of Thieves	24.95	16.95
Kings Quest III	24.99	16.95
Hacker II	24.99	16.95
Hardball	24.99	16.95
Hitchhikers Guide	29.99	20.95
Hollywood Hijinx	29.99	20.95
Hollywood Strip Poker	19.95	13.95
Impact	14.95	10.49
Kampfegruppe	29.99	20.95
Karate Kid Part II	24.95	16.95
King of Chicago (Soon)	29.95	20.95
Knight Orc	19.95	13.95
Land of Legends (Soon)	Phone	Phone
Leaderboard (Not A500)	24.99	16.95
Leaderboard Tournament	9.99	6.99
Leather Goddesses	34.99	23.95
Marble Madness	19.95	13.95
Mean 18 Golf	29.95	20.95
Mouse Trap	14.95	10.49
Ninja Mission	9.99	6.99
Ogre	24.99	16.95
Pawn	24.95	16.95
Phalanx	9.99	6.99
Phantasie III	24.99	16.95
Plutos	14.95	10.49
Portal	34.99	23.95
Roadwar 2000	29.95	20.95
Shanghai	24.99	16.95
Silent Service	24.95	16.95
Sinbad & Throne of Falcon	29.95	20.95
Sky Fighter	9.99	6.99
Sky Fox	14.95	10.49
Space Battle	9.99	6.99
Spaceport	19.99	13.95
Space Ranger	9.99	6.99
Star Glider	24.95	16.95
Super Huey	19.99	13.95
Swooper	19.95	13.95
Tass Times	24.99	16.95
Temple of Apshai Trilogy	24.99	16.95
Terrorpods	24.95	16.95
Vaders	9.99	6.99
Wizards Crown (Soon)	29.99	20.95

AMIGA 500/1000 BUSINESS	RRP	OUR PRICE
Aegis Animator/Images	103.50	83.95
Aegis Artpak 6	23.00	18.99
Aegis Digital (Comms S/Ware)	59.95	46.95
Aegis Draw	69.95	55.95
Aegis Draw-Plus	184.00	149.95
Aegis Impact	63.25	51.95
Aegis VideoScape 3-D	143.75	116.99
Aegis-Sonics	59.95	46.95
Cambridge Lisp MCC	149.95	116.95
CLImate	34.95	27.99
Delux Music Construction	69.95	49.95
Devpac Assembler	59.95	41.95
DigiPaint	49.95	39.95
Instant Music	29.99	20.95
K-Seka 68000 Assembler	79.95	63.95
Lattice C (Standard) MCC	189.95	139.95
Lattice C (Developers) MCC	299.95	249.95
Maurauder II	34.95	22.95
MCC Macro Assembler	69.96	54.95
MCC Pascal	89.95	69.95
MCC Shell	49.95	38.95
Modula 2 (Standard)	99.95	77.95
Modula 2 (Developers)	149.95	116.99
Music Studio	34.99	23.95
Pagesetter	113.85	99.95
PAL Video Digitiser	199.00	184.95
PAL Video Digitiser Adaptor (A500/A2000	24.95	21.95
Pro-Midi Interface (for Below)	59.95	49.95
Pro-Midi Studio Software	185.00	149.95
Scribble II	89.95	69.95
Soundscape Sound Digitizer	124.95	99.95
Superbase Personal	99.95	79.95
Word Perfect (NEW)	293.25	254.95
Zuma Fonts Vol 1,2,3 (each)	39.95	31.95

TURTLE PRICES ARE THE ONES TO JUDGE THE COMPETITION BY WE ARE SURE WON'T FIND LOWER PRICES AND FREE DELIVERY FIRST CLASS SERVICE AT FIRST CLASS PRICES

Post: Send Cheques, P.O. or Visa/Access details to address below.

Phone *0476 60488 24 Hour Service with your Visa/Access details*

Turtlesoft Dept ACE, 35 Brook Street Courtyard, Grantham, Lincs. NG31 6RY

Subject to availabilty, items are despatched within 24 Hrs. E&OE

Just because you don't see it – Doesn't mean we haven't got it – Call for Details!

ATARI DEALER **HOMEVIEW** ATARI DEALER

296 Brockley Road, Brockley, London S.E.4 2RA

Tel: 01 · 691 0207

Complete range of Atari Computer Hardware and Software also, large range of Amiga, Sega hardware and software

Atari Mega 2	£949.00
Atari 1040STF	£399.00
520STM inc. mouse, 1Mb drive, 1st word	£350.00
520STFM inc. mouse .5 meg drive	£269.00
Amiga 500	£374.00
Sega game consul	£94.00
Sony MD2 DS/DD	£21.00

ENTERTAINMENT

Star Trek	ST	£18.95
Trivial Pursuit	ST	£17.95
Chessmaster 2000	ST/AMIGA	£22.45
Barbarian	ST/AMIGA	£22.45
Starglider	ST/AMIGA	£22.45
Terrorpods	ST/AMIGA	£22.45
Space Harrier	SEGA	£23.70
Choplifter	SEGA	£18.95
The Ninja	SEGA	£18.95

All latest Atari, Amiga, Sega software in stock

Please note we can not list all software as we are currently carrying over 1000 titles on the Atari range of computers

All prices inclusive of VAT

Access and Visa welcome

Callers welcome Mon – Sat 10.30am – 8.00pm

Sun 11.00am – 3.00pm

24hr answer service

BARCLAYCARD VISA

Call in and chat over a cup of coffee

Attention All Adventurers!

INFOCOM MICROPROSE SSI DATASOFT MINDSCAPE AVALON HILL MICROLEAGUE SPORTS SSG ORIGIN EPYX + ACTIVISION BRODERBUND SUBLOGIC SIMULATIONS CANADA Electronic Arts ACCOLADE ACCESS DKG SIERRA

Cut Price Software/Hardware

Wargames Adventure Simulation Specialists!

Run by Enthusiasts for Enthusiasts

We Stock: (DISC) Atari/ST — Apple II Commodore/Amiga IBM/Amstrad PC

SPECTRUM BBC AMSTRAD

Mail Order Anywhere or Visit Our Retail Store

Send large S.A.E. now for free catalogue.

VISA Call in for a Coffee & a Chat!

COMPUTER ADVENTURE WORLD

1A Charing Cross, BIRKENHEAD L41 6EJ, England

Telephone 051 666 1132 (Mon/Sat 10am-5pm)

menus that can be called up. They have different characteristics, and their individual talents must be exploited in order to survive. Played against a very tough time limit, *Shadowfire* requires the player to react swiftly under pressure and stretches tactical abilities to the full.

SHANGHAI

Activision C64 £9.99cs £14.99dk ● Atari ST £19.99dk ● Amiga £24.99dk ● IBM PC £19.99dk

Thoroughly addictive patience-style game played with representations of Mah-Jongg tiles. The 144 pieces are stacked in a rough pyramid shape, and the player must remove exact matching pairs of those tiles which are free, ie, which can be taken from the pyramid without dislodging any other tiles. The object is to remove all tiles. Optional features include two player, tournament and time limits. All versions are extremely playable, but the stunning graphics on the Amiga version ensure that it will get loaded up again and again.

SKULLDIGGERY

Nexus ● Atari ST £19.95

Boulderdash -clone that completely outdoes the original on this particular machine. Again (see *Boulderdash*, above) you're digging for diamonds in caverns over 100 different screens – with a time limit for each screen. *Skulldiggery* scores on playability (easier screens to begin with and a choice of starting point) and its entertaining two-player option.

SORCERY

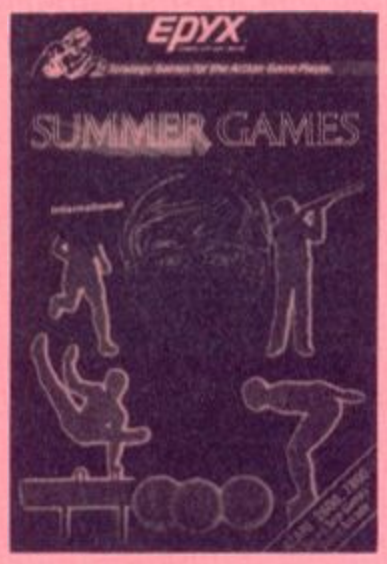
Virgin ● Amstrad £8.95cs ● C64 £8.95cs

As near to graphic perfection as you're likely to get, this arcade adventure is no slouch on the gameplay side either. As a sorceror on the side of good you have to fly round the landscape – dungeons, waterfalls, castle battlements, etc – freeing your imprisoned companions. Scattered around you'll find weapons to dispose of nasties and keys to help you explore further, but you'll have to plan their use carefully. Good to listen and great to play.

SPINDIZZY

Electric Dreams ● Spectrum £9.99cs ● C64 £9.99cs £14.99dk ● Amstrad £9.99cs £14.99dk

Tremendous stuff; steer your spinning top over tough obstacles and collect jewels, against a fiendish time limit. The game landscape is a vast system of catwalks, ramps, towers, and trampolines surrounded by lethal drops – and NO safety rails. There are floor switches to activate lifts and bridge gaps, but tripping them in the right order can be harder than it looks. A few bad guys and a lot of nice touches, but the exploration's the thing.



SPY v SPY

Beyond ● Spectrum £9.95cs ● C64 £9.95cs £14.95dk ● Amstrad £9.95cs £14.95dk

It's the spies from MAD magazine up to their old tricks. The action takes place in an embassy where the spies compete to find a variety of objects, put them in a bag and escape in an airplane. Each spy has a variety of traps he can set in order to delay the other's progress, but be careful that they don't backfire.

STARGLIDER

Rainbird ● Spectrum £14.95cs £19.95dk

● C64 £14.95cs £17.95dk ● Amstrad £14.95cs £19.95dk ● Atari ST £24.95dk ● Amiga £24.95dk ● IBM PC £19.95dk

Starglider is a shoot-em-up cum strategy game boasting vector graphics at their very best. The screen is essentially your view from the cockpit, your objective is to destroy the 'starglider', flagship of the Egron forces who have invaded your homeland Novenia. Standard issue scenario, but an outstanding game.

SUMMER GAMES

Epyx/US Gold ● C64 £9.95 cs £14.95dk ● Atari XE £14.95dk (Summer Games 1 only) ● IBM PC £29.95dk

Epyx sporting simulations are of high quality but none have quite captured the playability and style of the original Summer Games and its immediate successor, Summer Games 2. One to six players can take part in high jump, gymnastics, springboard diving, clay pigeon shooting, swimming, pole vault – and others – with lovely large graphics and smooth animation throughout. Control of your athlete can be complex so practice is recommended.

TAU CETI/ACADEMY

CRL ● Spectrum £9.95cs ● C64 £9.95cs £14.95dk ● Amstrad £9.95cs £14.95dk ● Atari ST £19.95dk ● Amiga £19.95dk

Flight simulator/shoot-em-up and its sequel which are both incredibly smooth and well put together. The attention to detail is impeccable as you set off on hair-raising missions as a space cadet. In *Academy* you get to design your own space skimmer craft as well.

THEATRE EUROPE

PSS ● Spectrum £9.95cs ● C64/128 £9.95cs £14.95dk ● Amstrad £9.95cs £14.95dk

Set just into the future, this strategy

game covers the first 30 days fighting between the NATO countries and Warsaw Pact. If you play as NATO supreme commander your objective is to prevent invasion of West Germany at all costs; if you play as Warsaw Pact your aim is overrun West Germany. There are four basic phases to the game: movement, attack, resupply and air. You will also be given the option to use tactical chemical weapons in attacks. At its new cheaper price, *Theatre Europe* is a gift. It comes frighteningly close to predicting the future for Europe should the unthinkable happen.

THINK!

Firebird ● Spectrum £1.99cs ● C64 £1.99cs ● Amstrad £1.99cs

Originally released by Ariolasoft at full price, but now available for a fraction of that from Firebird. It's a horribly addictive game played on a 6x6 grid – either one or two player – in which you attempt to connect four counters, horizontally, vertically or diagonally. A compelling puzzle which incorporates many additional features and skill levels.

THRUST

Firebird ● Spectrum £1.99cs ● C64 £1.99cs ● Amstrad £1.99cs

Terrifyingly sensitive controls and a large helping of real-life physics make this budget title an absolute must. Flying down through the caverns of an enemy-held planet, you have to pick up fuel and destroy hostile gun turrets without crashing into the tunnel walls. Tough enough as it is, but then you've got to make the return journey with a heavy load slung under your craft. Very mean, very addictive.

ACE READER OFFERS

Please rush me the following items from the ACE Reader Offer pages (just before Pink Pages).

Order code	Title	ACE Price
1.		
2.		
3.		
4.		
5.		

Total Software Order Box A

■ Send this form to:
ACE Reader Offers
FREEPOST (BS4900)
SOMERTON
Somerset TA11 7BR

No stamp required if posted in the UK, Channel Islands or Isle of Man.

SUBSCRIPTION ORDERS

☐ Tick here for a 12 issue subscription to ACE costing £17.95. This entitles you to £10 off your software order.

Software Order less £10 discount Box B
(Box A minus £10. If box A is less than £10, write ZERO.)

Subscriber's total payable Box C

Name

Address

Phone (if poss) **Computer**

Method of payment ☐ ACCESS • ☐ VISA • ☐ CHEQUE • ☐ P.O.

Cred. card no. **Exp.date**

Please make out cheques and postal orders to Future Publishing Ltd.
This form is valid until January 31st, 1988

ACE READER OFFERS

Please rush me the following items from the ACE Reader Offer pages (just before Pink Pages).

Order code	Title	ACE Price
1.		
2.		
3.		
4.		
5.		

Total Software Order Box A

■ Send this form to:
ACE Reader Offers
FREEPOST (BS4900)
SOMERTON
Somerset TA11 7BR

No stamp required if posted in the UK, Channel Islands or Isle of Man.

SUBSCRIPTION ORDERS

☐ Tick here for a 12 issue subscription to ACE costing £17.95. This entitles you to £10 off your software order.

Software Order less £10 discount Box B
(Box A minus £10. If box A is less than £10, write ZERO.)

Subscriber's total payable Box C

Name

Address

Phone (if poss) **Computer**

Method of payment ACCESS • VISA • CHEQUE • P.O.

Cred. card no. **Exp.date**

Please make out cheques and postal orders to Future Publishing Ltd.
This form is valid until January 31st, 1988

YORK COMPUTER CENTRE

THE SPECIALIST IN YORKSHIRE

Atari ST's from	£245
Atari 130XE	£129
Commodore Amigas (with voucher)	£476
Commodore 64 from	£125
Spectrum +2	£149
Sega Master Console	£99
Nintendo Games Console	£99

* * *

Plus a very wide range of programs for all the above machines at discount prices.

* * *

Also disc drives, monitors, printers, joysticks, books, blank tapes and discs *all* at competitive prices.

Please call for details on **0904 641862** *or visit our shop in the centre of York*

9 Davygate Arcade, Davygate, York
0904 641862

VISA

LIGHTSPEED SOFTWARE

60 HIGH STREET HANHAM BRISTOL BS15 3DR
TEL: (0272) 604130

24 HOUR ANSWER PHONE FOR ALL QUERIES

NEW TITLES AVAILABLE FROM DAY OF RELEASE FOR ST AND AMIGA.

ATARI ST		AMIGA	
Hunt for Red Oct	18.50	Sky Fighter	12.50
Star Trek	15.50	Hunt for Red Oct	18.50
Star Wars	15.50	Defender of Crown	23.50
Defender of Crown	24.50	The Pawn	18.50
Backlash	17.50	Guild of Thieves	18.50
Sky Fighter	12.50	Starglider	18.50
Not a Penny More	17.00	Leviathan	17.50
Solomons Key	17.00	Impact	17.00
Gauntlet	18.50	Plutos	17.00
Gauntlet II	18.50	Terrorpods	18.50
Barbarian (Psygnosis)	18.50	Barbarian	18.50
Barbarian (Palace)	12.50	Alien Fires	42.00
Procopy 1.5	27.50	Arctic Fox	24.50
Starglider	18.50	Borrowed Time	19.00
Advanced Art Studio	19.00	Demolition	8.75
Arkanoid	12.50	Fairy Tale	44.00
Boulderdash Con Set	19.00	Flight Sim II	39.85
Bridge Player 2000	18.75	Grandslam Tennis	42.50
Champion Wrestling	19.00	Jewels of Darkness	15.00
Deathstrike	12.50	Knight Orc	16.99
Eden Blues	19.00	Leaderboard	19.00
Flight Sim II	39.95	Leaderboard Tournament	8.75
Flight Sim II Scenery Disk 7	26.50	Leather Goddess	24.50
Gauntlet	19.00	Marble Madness	24.00
Goldrunner	19.00	Phalanx	8.75
Guild of Thieves	19.00	Portal	28.00
Hades Nebula	15.50	Silent Service	19.00
Hollywood Hijinx	24.50	Sinbad	32.00
Jupiter Probe	12.50	Stationfall	25.50
Leaderboard	19.00	Sonix	70.00
leaderboard Tournament	8.25	Ultima III	19.00
Knight orc	16.99	Uninvited	24.00
Mean 18	19.00	Space Battle	8.75
Mercenary Compendium	19.00	Brian Clough's Football	16.50
Metrocross	19.00	Delux Paint 2	120.00

All prices are inclusive of VAT and delivery inside the UK. Please make cheques, P/O payable to 'Lightspeed Software'.
all orders despatched with 24 hours, please allow 7 days.

TOMAHAWK

Digital Integration ● Spectrum £9.95cs ● Amstrad £9.95cs £14.95dk ● Atari ST £24.95dk

One of the all-time great flight simulators, *Tomahawk* also has a strong combat edge to it. Flying a US Army Apache helicopter is a complex business, and the game's realistic controls make no concessions for learner pilots. Choode one of the three combat missions and you can fly out to attack ground targets, while keeping a weather eye oopen for enemy aircraft. Landscape, buildings and vehicles are all drawn in crisp vector graphics.

URIDIUM

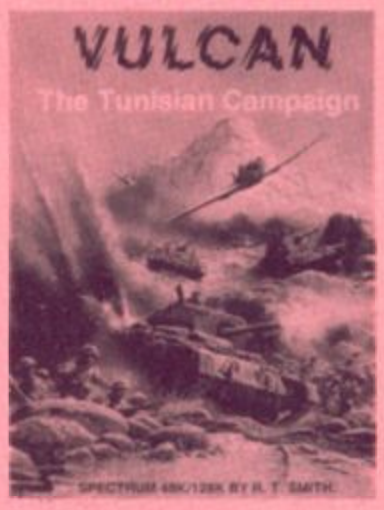
Hewson ● Spectrum £8.95cs ● C64 £9.95cs £12.95dk ● BBC £9.95cs £14.95dk

The piece de resistance of scrolling shoot-em-ups: blast the dreadnought and attacking ships while dodging around any large structures. Great metallic-looking dreadnoughts and the smoothest scrolling you'll ever see put this head and shoulders above the opposition. A game not to be missed, especially now that C64 versions come packages with the excellent *Paradroid*.

VULCAN

CCS● Spectrum £9.95cs ● Amstrad £9.95cs

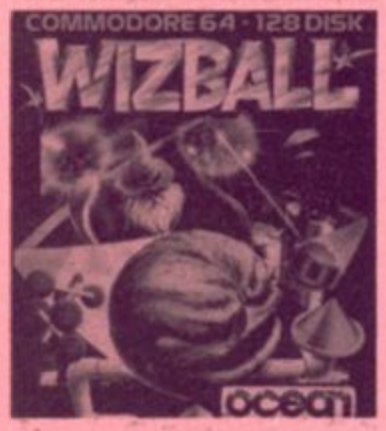
An elegant, simple and ingenious wargame, *Vulcan* covers the Tunisian campaign of 1942-43. A huge playing area and air attack phase make the game an improvement over the same author's earlier works *Arnhem* and *Desert Rats*. *Vulcan* is fast, efficient and simple to play, and no self-respecting wargamer should be without it.



WIZBALL

Ocean ● Spectrum£7.95cs ● Amstrad £8.95cs £12.95dk ● C64 £8.95cs £14.95dk

A compelling and original ball game in which you become the wizball and attempt to conquer the colour creatures who are out to eliminate the spectrum and render the landscape grey and drab. Controlling the wizball is great fun and makes this one of the most playable game to have appeared for a long time.



XOR

Logotron ● Spectrum £7.95cs ● Amstrad £9.95cs £14.95dk ● BBC £9.95cs £12.95dk

Extremely tricky maze game involving the player controlling two shields, and collecting masks through 15 mazes, which increase in complexity as you progress. Also io later stages, fish and chickens lie in wait, often blocking the masks and just waiting to fall on you and bring your quest to a premature end. Later still, the fish and chickens are the least of your worries as bombs, transporters and dolls crop up to conspire against you. Smooth scrolling, simple graphics, this one requires planning to complete successfully.

ZOIDS

Martech ● Spectrum £7.95cs ● C64 £8.95cs £14.95dk ● Amstrad £8.95cs £14.95dk

The game of the toy, an icon-driven arcade adventure, in which you fuse your mind with a zoid, then stomp around the zoidstar in search of the pieces of the mighty Zoidzilla. Tactics are needed if you're to survive long enough to come near to completing this thrilling game. It takes a while to get into, but it becomes so engrossing that it's well worth persevering.

Readers' Page

This space (and much, much more if you want it) is waiting to be filled by YOU...

Small ads, club announcements, event details, pen pals, adventure contacts. If you want to reach out to tens of thousands of readers spread around the world then this is the place to do it. Entry is FREE but please note that software sales announcements and trade advertisements will not be accepted.

Adventure Helpline...

From next month we'll be printing the names and addresses of those brave souls who have entered the darkest locations of Adventureland - and returned to tell the tale. If you have completed an adventure and would like to help others who may be experiencing difficulty with the game, then use the form below to list the games you've completed and post it off post-haste! Adventure contacts have found in the past that they not only get the satisfaction of helping others, but also make many friends in the process. Fame, immortality, and international recognition at last!

✂ -

Pink Pages Coupon

(use this form to send in your entry for inclusion on the Ping Pages Readers' Section. Write in block capitals. Photocopies are acceptable)

Name: _____

Address: _____

_____

_____Postcode_____

Text for entry (max. 100 words except for Adventure Helpline):

_____

_____

_____

_____

_____

_____

_____

_____

_____

FMC Fleet Micro Company

Micro Computer Hardware and Software

Atari STFM + Free Starter Kit ATARI
£285.00

AMIGA
Amiga A500 with 512K RAM 880K 3.5" disk, mouse, software
£465.00

AMIGA

7 Cities of Gold	23.35
Adventure const set	23.35
Archon	23.35
Arctic Fox	23.35
Balance of power	31.15
Borrowed Time	19.45
Challenger	7.75
Cruncher factory II	7.75
Defender of the Crown	23.35
Deja Vu	23.30
Mousetrap	11.95
Plutos	11.95
Faerytale	38.95
Flight Simulator II	38.95
Guild of Thieves	19.45
Hitch Hikers Guide	23.35
Goldrunner	19.45
Jewels of Darkness	13.55
Karate Kid II	19.45
Karate King	7.75
Leader Board	19.45
Little Computer People	27.25
Marble Madness*	23.35
Music Studio	27.25
Portal	27.25
Pru Sprite	31.15
Roadwar 2000	19.45
Shanghai	19.45
Silent Service	19.45
Skyfox	23.35
Impact	11.95
Starglider	19.45
Super Huey	15.55
Tas Times	19.45
The Pawn	19.45
Tournament Leaderboard	7.75
Winter Games	19.45
World Games	19.45
Fall scene disk II	19.45
Terrorpods	19.45

ATARI ST

Airball	19.45
Alternative Reality	19.45
Arctic Fox	31.15
Arkanoid	11.65
Borrowed Time	19.49
CAD 3D	39.00
Chessmaster 2000	35.00
Colorspace	15.55
Crystal Castles	11.15
Degas Elite	54.55
Fast Basic (D)	35.85
Fleet Street Publisher	89.95
Flight Simulator II	38.95
Gauntlet	19.45
Gold Runner	19.45
Guild of Thieves	19.45
Hacker	19.45
Hacker II	19.45
Hardball	19.45
Hitch Hikers Guide	23.35
International Karate	15.55
Karate Kid II	19.45
Little Computer People	27.25
Leaderboard	19.45
Mercenary Compendium	18.45
Metrocross	19.45
Mousetrap	11.65
Music Studio	27.25
Plutos	11.65
Prohibition	15.55
Road Runner	19.45
Rogue	19.45
Silent Service	19.45
Sky Fox	19.45
ST Karate	15.55
Starglider	19.45
Super Huey	15.55
TNT	15.55
Trail Blazer	19.45
Typhoon	15.55
Indiana Jones	19.99
Terrorpods	24.99
S.D.I	29.99
F15	24.99
Tai Pan	19.99
Impact	14.99
Barbarians	24.99
Barbarians (Palace)	29.99
Defender of the Crown	24.99
Trivial Pursuit	14.99
Sidewalk	19.99
Addictaball	14.99
Plundered Heart	19.95
FSII scene disk II	19.50
Blue War	15.95
Swooper	15.95
Star Trek	15.95
Solomons Key	15.95
Super Sprint	15.95
Star Wars	15.95
Hunt for the Red October	19.95

REMEMBER... WE GUARANTEE DELIVERY WITHIN 7 DAYS OR YOUR MONEY BACK

All prices include VAT and P&P. Make cheques. PO's payable to:

FLEET MICRO COMPANY
Unit 25, "Shaffers", 677 High Road, South Benfleet, Essex SS7 5SFTel: (0268) 565138

MICROWARE COMPUTER SERVICES

AMIGA HARDWARE

Amiga 500 inc. Deluxe Paint modulator & Starter Pack	£499
Amiga 500 inc. Deluxe Paint modulator & Starter Pack & 1081 Colour Medium res monitor	£739
Amiga 500 inc. Deluxe Paint modulator & Starter Pack + NEC 31/2" Disc Drive	£559
Amiga 500 inc. Deluxe Paint modulator & Starter Pack + 1081 Monitor & NEC disc	£849

PERIPHERALS

1081 medium res. colour monitor	£329
Philips ATH43 med. res. colour monitor stereo	£279
Philips 8852 med/hi res. colour monitor stereo	£319
NEC 31/2" 880K disc drive	£129
512K RAM expansion with clock	£99
Diggi view II with A500	£189
Easy drawing tablets for A500	£289
20Mb hard disc for A1000	£669
2Mb RAM expansion for A1000	£410

ATARI HARDWARE

Atari STM with 1/2 Mb disc drive, mouse and software	£279
Atari STM as above + mono monitor	£369
1040 STF 1Mb drive mono monitor 24K RAM	£499
Atari XE and computer games consul with joystick	£79

ACORN

Acorn Archimedes taking order now, prices from £799 to £1199

AMIGA SOFTWARE **Small selection of over 200 titles**

Scrabble Version II	£86
Alien Fires	£34
Borrowed Time	£22
Marble Madness	£19
Digi Paint	£59
Barbarian	£21
Banatacas	£21
Brian Clough's Football	£21
Defender of the Crown	£25
Demolition	£10
Fairy Tale adventure	£44
Flight Simulator II	£42
Gold Runner	£21
Terrorpods	£21
Winter Games	£21

PO Box 2, Skegness, Lincolnshire PE25 2QL. Tel: 0754 610217

Order instructions: write name, address, postcode and phone number. Write order out clearly stating quantity, description and price. *make cheques or POs payable to* **Microware Computer Services** and send to above address.
All prices are fully inclusive. Prices subject to change without notice on availability. E. & O.E.

THE BLITTER END...

Thanks for the melody...

Bach is probably spinning in his grave – Westhill Music have come up with a program for the Amstrad that churns out melodies in three part harmony, ad infinitum. If any of them sound promising, just hit a key and it'll jot them down on your printer in rudimentary manuscript form. Then all you have to do is add a copyright notice, post it to John peel, wait for the millions to roll in, and no-one will ever know...

Programmer Brian james claims to have taken over seven years to develop *Mastercomposer*. the program composes in any key and in different styles – jigs, waltzes, calypsos and amrches. 'If chess programs demonstrate 'machine intelligence'., then *Mastercomposer* demonstrates machine creativity', warbles the blurb that comes with the package. Contact Westhill Music, 75 Beech Road, Westhill, Skene, Aberdeenshire, AB3 6WR – but at £49 for the full version (£15 for a slimmed-down edition) it's not exactly going for a song...

Better Blitter

Jez San, author of Rainbird vector graphics hit *Starglider*, took time off from the game's soon-to-appear (but as yet untitled) sequel to phone us and point out a king-sized OOPS in ACE issue 3. It appears that the Amiga blitter column in the Upgrade Stakes feature should have been *twice* the height it actually was, giving it an altogether more impressive showing. OK, we'll come clean on this one: it was - err - a typographical error.

Blankety Blank

A handful of gamesplayers have been having trouble with their Amstrad disks of *Gauntlet*. The disks in question had their Gauntlet labels stuck on rather clumsily, and on closer inspection proved to have *Basildon Bond* labels (as in *The Adventures of..*) underneath. So did the disks have the wrong game on them, you ask? No; actually, they were totally blank. Curiouser and curiouser...

Gary Lineker flies in to start Gremlin's promotional push for the computer game and board game bearing his name. Gary's been goal-less so far this season for Barcelona; will this affect sales of the program?

Thanks to...

This month the ACE team take their hats off to: **Tim Moore** (*Liberator*, ST *Solomon's Key* and many others) for a great little ST freeze-frame utility that should come in very handy indeed; **Ian Burley** for some triffic photos at short notice; **Bath Computer Shack** for their help with earlier issues; and **Deith Leisure** of London without whom Arcade ACE would be impossible.

PR problems

Many software houses hire PR companies to handle their publicity for them. And many PR companies handle more than one software house. Headlines, for instance, look after CRL and Martech – among others.

So perhaps we shouldn't be too surprised that one fine morning a press release came in telling us all about the latest CRL game – on notepaper headed Martech. Or is this just the first stage in a massive amalgamation? We'll have a better idea when we get the next press release...

Next month..

Clear up the post-Xmas blues with an effervescent New Year dose of ACE! We'll be administering:

- **CENSORSHIP – could they cut games?**
- **the complete business on GAMES CREATORS**
- **a review of the incredible QUANTUM PAINTBOX for the ST**
- **a musical bash-em-up of DRUMKIT reviews**
- **an interview with the President of Jap arcade giants CAPCOM**
- **pink pages expanded to include PERIPHERALS**
- **a trenchant LOOK BACK AT 87 by a major industry figure**

PLUS all the usual reviews, news, adventures and letters.

Funny photos

It's been 'Let's send ACE some bizarre photos of women' month this month, it seems: in the red corner, some very unpleasant screenshots of disembowelled women slain by the Whitechapel murderer (no names, no publicity); and in the blue corner, some lurid digitised pics of the improbably named Tina Small, sent in by a reader of peculiar tastes. In a corner all of its very own, however, is this one of self-styled St Bride's headmistress Marianne Scarlett (joint authoress of *Jack the Ripper*) resplendent in her Victorian garb.

Activision 24-25,92-93,102-103,116-117
Ashcom 49
Bath Comp. Shack 31
Byteback 39,138
CBS 130
Chips 135
Code Masters 108
Compumart 57
Computer Adventure World 142
Computer Magic 135
D&H 39
Electronic Arts 66-67
Evesham 139
Fleet 145
Goel 132
Gremlin IFC,3
Homeview 142
Incentive IBC,94
Jade 57
KJC 49
Konami 44
Ladbroke 114
Light Speed 144
Mail-Centa 134
Megabyte 128
Melbourne House 65
Microprose 18,50,83
Microware 145
Mirrorsoft 70-71
Novagen .....
Ocean/Imagine OBC,15,33,43,58,99
Psygnosis 6
Shekhana 101
Silica Shop 119
Software Super Savers 118
Sound 'N Vision 140
Storm 57
Stort Soft 131
Telegames 94
Turtlesoft 40,141
Tynesoft 52
Ultima 129
US Gold 16-17,23,78-79,106-107
Verran 29
Video Vault 37,49
Wight Computing 133
Woolworths 11
York 144

DRILLER

INTRODUCING

FREESCAPE™

SOLID
3 DIMENSIONAL GRAPHICS

SPECTRUM
COMMODORE
AMSTRAD CPC
Cassette £14.95
Disc £17.95

Mitral – An abandoned Moon – An unstable Moon about to blow – A defence system set on automatic – Lasers that don't miss – Scanners that hunt you out. *Mitral is MASSIVE . . .*

"The 3D presentation is Spectacular" SINCLAIR USER. ***"A Major Breakthrough"*** AMSTRAD USER.
"A New 3 Dimensional Reality . . . WOW!" CRASH.

THE DRILLER EXPERIENCE – IT'S JUST LIKE BEING THERE!

© 1987 INCENTIVE SOFTWARE LTD. ALL RIGHTS RESERVED. FREESCAPE™ IS A TRADEMARK OF INCENTIVE SOFTWARE LTD.

incentive SOFTWARE LTD 2 MINERVA HOUSE, CALLEVA PARK, ALDERMASTON, BERKSHIRE RG7 4QW (07356) 77288

SURVIVE TO BECOME A CAPTAIN

KONAMI

COMBAT SCHOOL

7 GRUELLING EVENTS PLUS A PENALTY STAGE

ASSAULT COURSE

FIRING RANGE 1

IRON MAN RACE

FIRING RANGE 2

ARM WRESTLING

FIRING RANGE 3

FIGHT INSTRUCTOR

CHIN-UPS PENALTY

COMBAT SCHOOL TM and Konami ® are trademarks of KONAMI © KONAMI 1987

ocean ®

SPECTRUM **7.95**

AMSTRAD **8.95**

COMMODORE

SPECTRUM AMSTRAD **14.95** DISK

COMMODORE **12.95** DISK

Ocean Software · 6 Central Street · Manchester · M2 5NS
Telephone: 061 832 6633 · Telex: 669977 Oceans G